



# **Results of the 1999 Survey of Pregnancy and Single Parenthood in the Navy**

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13. ABSTRACT (Maximum 200 words) The 1999 Navy Survey of Pregnancy and Parenthood, the fifth in a series, consisted of core items from prior versions and new items to investigate current Navy management concerns. A disproportionate random sampling technique was used for a mail sample and additional surveys were group administered at four sites. Overall, Navy women had lower annual pregnancy rates than their civilian counterparts, except for women 35 and older. Women on shore duty had higher pregnancy rates than women on sea duty. The number of adverse pregnancy outcomes was very low and there were no significant differences in the percentage of adverse outcomes for women based on sea duty, as was the case in 1997. More enlisted men were single parents in 1999 than in 1997. No improvement in compliance with the requirement for paternity counseling has been found since 1997. There has been little improvement in male officers' compliance with the requirement to complete a Family Care Certificate. Almost 80 percent of the pregnancies of officers, but only 40 percent of the pregnancies of enlisted women were planned. Slightly over half of the enlisted women who had an unplanned pregnancy had engaged in unprotected sex. The major recommendations were to emphasize the importance of the Family Care Certificate, especially to male officers; attempt to reduce unplanned pregnancies by improving birth control education for men and women and expanding family planning efforts; emphasize the importance of command support in helping single pregnant women obtain paternal financial support; and explore the reasons women and men feel uncomfortable discussing birth control information with available medical personnel.				
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## Foreword

The 1999 Navy Survey of Pregnancy and Parenthood is the fifth in a series that began in 1988. This series of studies has measured the prevalence of pregnancy and parenthood, especially single parents and dual-military parents, in the Navy and investigated personnel issues associated with these topics. The current work was sponsored by the Chief of Naval Operations Special Assistant for Women's Policy.

The authors are grateful to the men and women of the Navy who responded to the survey. Their responses provide the Navy with the information needed to improve the quality of service for all sailors. The authors also thank CAPT Linda Long (PERS-00W) and her staff for their assistance and guidance.

MURRAY W. ROWE  
Director

## **Summary**

Since the first study of pregnancy and parenthood in 1988, this series of studies has been devoted to measuring the prevalence of pregnancy and parenthood in the Navy. This report, the fifth in the series, focuses on pregnancy rates, birth control practices, effects of pregnancy on women and their Navy careers, and rates of parenthood, especially single parents and dual-military parents. In addition, the survey addressed women's health care as delivered by Navy medical providers.

## **Approach**

The 1999 survey consisted of core items, which had appeared in prior versions, and new items to investigate current concerns of Navy leadership. A disproportionate, random sampling plan was used for selecting 14,000 men and women to receive a direct mail questionnaire. Random samples of junior sailors (E-5 and below) were also selected at four installations for group administration of the questionnaire. In the analyses, responses were weighted to provide data representative of the paygrade and gender distribution of Navy personnel.

## **Findings**

The Navy's annual pregnancy rates are lower than comparable civilian rates for age cohorts. Almost 80 percent of the pregnancies of officers, but only 40 percent of the pregnancies of enlisted women, were planned. Slightly over half of the enlisted women who had an unplanned pregnancy had engaged in unprotected sex. Women on shore duty had higher pregnancy rates than women on sea duty. Women who became pregnant while in a deployable unit had no more adverse outcomes (e.g., fetal loss, health problems) than women on shore duty.

Single parenthood rates were slightly lower than in prior surveys, except for enlisted men whose current rate was significantly higher than in 1997. Divorce remained the most common cause of single parenthood for officers and male enlisted; whereas among female enlisted, being unmarried when the child was born was the major cause of single parenthood. There has been little improvement in compliance with the requirement for paternity counseling to advise single pregnant women of the help available to them in obtaining financial support from the baby's father. There has been no increase in compliance among male officers with the requirement to complete a Family Care Certificate.

## **Recommendations**

1. Emphasize the importance of the Family Care Certificate, especially to male officers.
2. Attempt to reduce unplanned pregnancies by improving birth control education for men and women as part of an expansion of family planning efforts.

3. Emphasize the importance of command support to help single pregnant women obtain paternal financial support.
4. Explore the reasons women and men feel uncomfortable discussing birth control information with available medical personnel on-board ships.

## Contents

<b>Introduction.....</b>	<b>1</b>
Parenthood .....	1
Pregnancy.....	2
Navy Pregnancy and Parenthood Surveys .....	2
<b>Method .....</b>	<b>2</b>
Survey Development.....	2
Sampling Design.....	3
Procedure .....	3
Data Analysis .....	4
<b>Results of Parenthood Questions.....</b>	<b>5</b>
Rates of Single Parenthood.....	5
Care of Children During Parental Absences.....	9
<b>Family Planning Attitudes and Behaviors.....</b>	<b>10</b>
Attitudes Toward Family Planning and Birth Control.....	11
Use of Birth Control.....	13
<b>Results Regarding Pregnancy.....</b>	<b>16</b>
Point-in-Time Pregnancies.....	16
Pregnancies in FY98 .....	17
<b>Discussion .....</b>	<b>26</b>
Parenthood .....	26
Family Planning Attitudes and Behaviors .....	27
Pregnancy.....	28
Women's Health Care.....	29
<b>Conclusions and Recommendations.....</b>	<b>30</b>
Parenthood .....	30
Family Planning and Birth Control.....	31
Pregnancy.....	31
<b>Appendix A: 1999 Pregnancy and Parenthood Survey—Female Version .....</b>	<b>A-0</b>
<b>Appendix B: 1999 Pregnancy and Parenthood Survey—Male Version .....</b>	<b>B-0</b>

## List of Tables

1. Samples Resulting from Two Modes of Administration .....	4
2. Comparison of Single and Married Parents .....	8
3. Responses of Single Parents .....	9
4. Care of Children When Parent is Deployed.....	10
5. Family Planning Attitudes of Navy Women and Men.....	11
6. Percentage of Women and Men Endorsing Statements Addressing Birth Control .....	12
7. Beliefs Concerning Birth Control Efficacy.....	13
8. Use of Birth Control by Navy Personnel .....	14

9. Support for Contraception by Military Medical Providers .....	15
10. FY98 Pregnancy Rates by Marital Status, Hispanic Origin, and Race .....	18
11. Events Associated with Conception for Women Who Became Pregnant in FY98 .....	19
12. Interactions of Pregnant Women with People in Their Commands.....	20
13. Assignments of Women who Became Pregnant in FY98.....	21
14. Transfer of Pregnant Enlisted Women from Ships .....	22
15. Outcome of FY98 Pregnancies by Sea/Shore Assignment.....	22
16. Prenatal Exposure to Potential Hazards.....	23
17. Work Experiences After Childbirth .....	24
18. Postpartum Fitness and Breast Feeding .....	25
19. Gynecological Care in 1999 and 1997.....	26

## List of Figures

1. Percentage of Officers who were Single Parents in 1999, 1997, and 1992 .....	5
2. Percentage of Enlisted Men who were Single Parents in 1999, 1997, and 1992.....	6
3. Percentage of Enlisted Women who were Single Parents in 1999, 1997, and 1992 .....	6
4. Comparison of Navy Personnel and Civilian Single Parenthood Rates .....	7
5. Point-in-Time Pregnancy Rate of Women Officers in 1999, 1997, and 1992.....	16
6. Point-in-Time Pregnancy Rate of Enlisted Women in 1999, 1997, and 1992.....	17
7. Comparison of Navy and Civilian Annual Pregnancy Rates.....	18



## **Introduction**

The readiness of the U.S. Armed Services is constantly examined and discussed. Two issues of major importance to this discussion are the impact of parenthood (especially single custodial parents) and pregnancy on the deployability and readiness of our forces. These issues came to the forefront again during Operation Desert Storm/Desert Shield, when the services were forced to rely upon a growing number of single parents, dual-military parents, and females in the ranks. This is the fifth (1988, 1990, 1992, and 1997) in a series of surveys devoted to measuring the prevalence of parenthood and pregnancy in the Navy.

Before 1948, women had served in the military during national emergencies (World Wars I and II). In June 1948 the Women's Armed Services Act of 1948 was passed and gave women a limited place in the military. The Act imposed a number of restrictions, including: (1) placing a 2 percent ceiling on the number of women allowed in the military (except nurses); (2) limiting the kinds of positions open to women and their promotions; and (3) mandating the separation of women with minor children, who married, or who became pregnant. Pregnancy and parenthood simply were not issues.

Since 1948, both the country and its Navy have undergone immense social change. Some of the most recent changes, including rescinding the "risk rule" (opening more positions to women), came about as a result of Desert Storm/Desert Shield and increased awareness of the increasing number of women, single parents, and dual-military parents in the services. Others, such as the increasing percentage of women in the Navy, are a result of the Navy's need to meet recruiting goals and quality standards.

### **Parenthood**

Over the past 25 years, regulations against married and/or pregnant women gradually weakened (Thomas, P. J. and Thomas, M. D., 1993). Not only did married women continue to serve in the Navy, a large number were married to military men. This forced the services to develop policies addressing the care of dependent children for both dual-military and single parents, particularly when those parents deploy with their units/squadrons/ships.

Individuals assigned to deployable units are expected to deploy with their units. The key to military readiness is the ability to have units where you need them, when you need them, and with unit members ready to accomplish their mission. Who will care for dependent children during deployment must not be an issue at the onset of deployment. Since 1984, the Navy has required single parents with full custodial care and dual-military parents to complete a Dependent Care Certificate (currently called a Family Care Certificate) naming a custodian for their children during deployment. In 1996, the Navy recognized the importance of such plans and expanded the requirement to cover service members with a dependent spouse (i.e., limited use of English language, non-driving), elderly parents or disabled family members whom they care for, or a civilian spouse who is frequently away from home (Department of the Navy, 1996).

## **Pregnancy**

The policy which separated military women who became pregnant has also gradually changed and culminated with the Secretary of the Navy stating in 1995: "pregnancy and parenthood are compatible with a Navy career" (Department of the Navy, 1995). However, as noted by Thomas and Uriell (1998), many military leaders continue to view pregnancy as a problem.

Much research has been devoted to the impact of pregnancy on military readiness and deployability. A 1997 RAND report (Harrell and Miller) examined the integration of women on defense readiness, cohesion, and morale. The report concluded that commanders and co-workers tended to view pregnancy and injuries among women as problematic in units that were understaffed or had a disproportionately high number of women. Conversely, pregnancy was of little concern to units that were fully staffed and had a proportionate number of women. Monson (1997) found no statistical support for the concern that pregnancy was having a negative impact on readiness and deployability. She reported, however, that among some in the military there is a perceptual problem about pregnancy and deployability.

In an effort to both protect the health of pregnant service members and their unborn children and execute the mission, the Navy's pregnancy policy allows women to remain aboard ship until the 20<sup>th</sup> week of gestation. Depending upon the ship's stage of deployment and the commanding officer's request, women may leave the ship early, thus leaving the ship under-staffed until a replacement arrives.

## **Navy Pregnancy and Parenthood Surveys**

The need for accurate data on rates of pregnancy and parenthood in the military has never been greater. Since the first study in 1988 (Thomas and Edwards, 1989), this series of studies has been devoted to measuring the prevalence of pregnancy and parenthood in the Navy. This report, the fifth in the series, focuses on rates of parenthood, especially single parents and dual-military parents, pregnancy rates, birth control practices, and effects of pregnancy on women and their Navy careers.

# **Method**

## **Survey Development**

The women's and men's forms of the 1997 Survey of Parenthood and Pregnancy served as models in the development of the 1999 surveys. Certain questions that had been included in all four previous versions of the surveys were replicated to enable Navy leadership to continue monitoring rates of pregnancy and single parenthood. Other items that were administered for the first time in 1997 were repeated because actions have been taken in the interim to correct problems that were identified by the 1997 survey results. Consequently, changes in responses to these items are the basis for determining whether the actions have been successful in ameliorating the problems. Finally, new questions were developed to investigate issues of current concern to Navy leadership. The draft surveys were reviewed by the Women in the Navy

Advisor to the Chief of Naval Personnel and the advisor to the Surgeon General on women's health. Based on their comments, additional revisions were made.

The final drafts of the surveys were pilot tested with appropriate groups of active duty women and men, both officer and enlisted. After approval by the Navy Personnel Research and Development Center Protection of Human Subjects Committee and the Chief of Naval Personnel, the surveys were prepared in optical scan format for administration.

### **Sampling Design**

A disproportionate sampling scheme was used for several reasons. First, experience with military personnel surveys has shown that the response rates of officers are higher than those of enlisted personnel, and that women have higher response rates than men. Thus, the requirement to obtain a sufficient number of respondents within each paygrade cell to yield reliable results dictated that more surveys be mailed to low-responding groups. Second, women in their primary childbearing years are the focus of the pregnancy questions. This sub-sample is subdivided in several ways during data analysis. Thus, a large over-representation of E-2 to E-4 women must be obtained.

### **Procedure**

A random selection procedure was followed to select the sample within each cell for the mailed data collection effort. The most recent versions of the officer and enlisted active duty personnel tapes were utilized for the population from which the sample was drawn. Personnel who were within six months of their rotation (transfer) date were excluded from the samples to reduce the number of surveys that might have to be forwarded. In addition, because of end-of-the-millennium problems with dates in existing personnel files, a rotation date beyond the year 2000 had to be utilized to bracket the relevant population.

The surveys, return envelopes, and a letter from the Chief of Naval Personnel urging participation in the study were mailed in mid-May 1999 directly to members of the sample at their work addresses. At two-week intervals, two follow-up postcards were sent out as reminders to non-respondents, and to thank those who had returned their surveys. Due to the anonymous nature of the study, there was no way of identifying who did or did not participate, so the entire original sample received postcards. The data gathering period closed approximately two months after the surveys were mailed.

Response rates to Navy personnel surveys have been falling for several years. In 1997, the overall response rate to the Survey of Parenthood and Pregnancy was 52 percent; in 1999, it was 33 percent (similar to other contemporary surveys). For this reason, on-site administration of the survey was undertaken at four Navy commands to supplement the number of surveys obtained through the mail.

Table 1 describes the final sample, by gender and paygrade, which was obtained from both modes of administration of the survey.

**Table 1. Samples Resulting from Two Modes of Administration**

Paygrade or Rank	Women		Men		Total	
	Mailed	On-site	Mailed	On-site	Women	Men
E2-E4	1,287	273	419	316	1,560	735
E5-E6	723	186	438	410	909	848
E7-E9	141	37	119	109	178	228
O1-O2	232	19	150	41	251	191
O3	322	25	204	58	347	262
O4-O5	339	23	258	71	362	329
Total	3,044	563	1,588	1,005	3,607	2,593

### **Data Analysis**

A unique issue that had to be resolved prior to conducting the analyses was whether the two samples could be merged, i.e., did the mode of administration affect responses. Hypothetically, military personnel in duty status who are told to report to a room to take a survey would be reluctant to refuse to participate, unlike personnel who receive an anonymous survey in the mail, which can be discarded without penalty. The reluctance of the former personnel might be expressed in ways that invalidate their answers to the survey. For this reason, a comparison of response frequencies obtained from the two sampling methods was made.

The mailed surveys were analyzed separately from the on-site surveys. Eleven demographic items were compared. At each paygrade, for women and men separately, the percentage who chose each response option was examined. An additional 20 questions were randomly chosen from the surveys for comparison. On all of the questions, for both men and women, response option selection did not differ by more than five percentage points. Thus, the two samples were judged equivalent and combined for all remaining analyses. Because of the disproportionate sampling that occurred, all cells were weighted to reflect the actual distribution of Navy personnel by paygrade or rank within gender.

Individual items were the level of analysis due to the needs of Navy leadership for response distributions for every question in the surveys. Frequencies and percentages were computed, along with confidence levels for critical questions. Comparisons were made of responses of women and men, paygrade groups, and special subgroups. In addition, responses to items common to the 1997 and 1999 surveys were compared to investigate whether any change had occurred. Appropriate tests were conducted to investigate if the differences were statistically significant. Because of the large samples used in this study, a 0.01 probability level was adopted for most statistical tests. However, when the sub-sample being analyzed totaled less than 200, a 0.05 probability level was accepted.

As mentioned earlier, the primary purpose of the survey was to monitor trends in single parenthood and pregnancy. To achieve this purpose, the percentage of personnel who were unmarried with custody of a child was compared to rates obtained with all previous iterations of

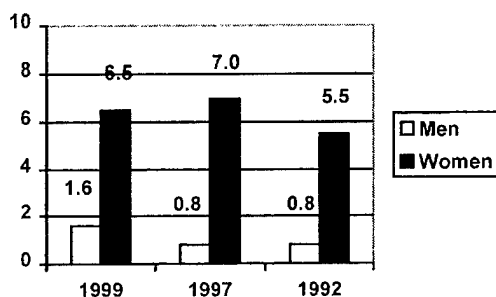
the surveys. Similar comparisons were made for women who were pregnant when they responded to the survey.

## Results of Parenthood Questions

The identification of single parents was based on two questions in the survey. Respondents who indicated that they were unmarried and that they had sole or joint custody of a child were coded as single parents.

### Rates of Single Parenthood

Figure 1 shows the percentage of officers who were single parents in the last three administrations of the surveys. The 1999 rate for women was 6.5 percent and has not varied significantly over the 7-year period that officers have been included in the survey sample. The rate for men, which was 0.8 percent in both 1992 and 1997, was 1.7 percent. For women officers, parental status differed significantly by rank ( $\chi^2(4, N = 949) = 86.12, p < .001$ ). Rates of both married and single parenthood were highest at the O-4 level. While there were too few male officers who were single parents to perform a similar analysis, rates of married parenthood were highest at the O-4 and O-5 levels.



**Figure 1. Percentage of officers who were single parents in 1999, 1997, and 1992.**

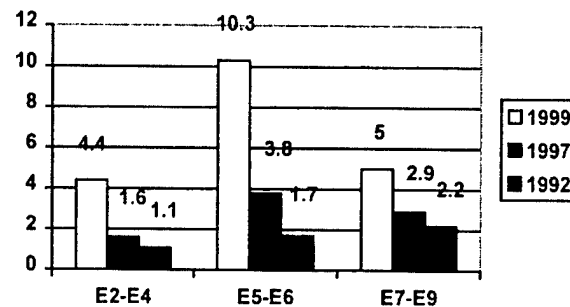
The percentages of enlisted men who indicated they were single parents in each of the last three survey administrations are shown in Figure 2. The overall rate was 7.2 percent in 1999, as compared to 2.7 percent in 1997 and 1.5 percent in 1992.<sup>1</sup> Thus, the rates have been increasing significantly over the past 7 years. This change is particularly apparent among E-5 and E-6 men, whose rate went from 2.0 percent in 1992 to 3.8 percent in 1997 and up to 10.3 percent in 1999.<sup>2</sup> The increase in single parenthood rates for E-2 through E-4 men was also statistically significant.<sup>3</sup> To investigate whether divorce might partially account for this change, a comparison was made of the marital status of enlisted men in the two most recent survey samples. In 1997, 6.6 percent of the men were divorced; in 1999, 11.8 percent were divorced, representing a

<sup>1</sup>  $\bar{z}(N=3,449) = 6.08, p < .001$  for 1997/1999 comparison

<sup>2</sup>  $\bar{z}(N=1,575) = 5.01, p < .001$  for 1997/1999 comparison

<sup>3</sup>  $\bar{z}(N=1,501) = 3.36, p < .001$  for 1997/1999 comparison

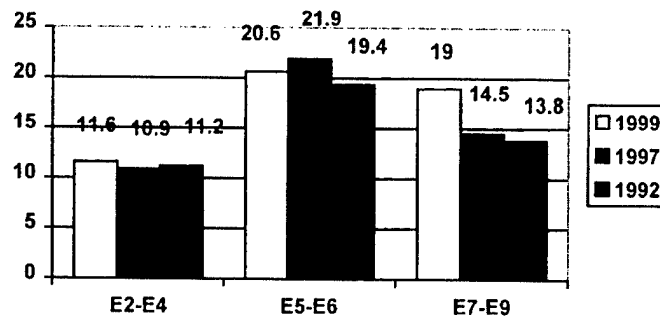
significant increase ( $z(3,539) = 5.33, p < .001$ ). The mean age of male enlisted single parents also rose from 30 to 33 years, whereas the mean age of married parents was unchanged.



**Figure 2. Percentage of enlisted men who were single parents in 1999, 1997, and 1992.**

As shown in Figure 3, the rates of single parenthood among women are much higher than those of men<sup>4</sup>. In 1999, the rate was 15.2 percent. This percentage does not differ from those obtained in 1992 (15.2%) or 1997 (14.7%). As with men, paygrade had a significant influence on the rates<sup>5</sup>, with the highest percentages among E-5 and E-6 personnel.

Figure 4 indicates that Navy rates of single parenthood are significantly higher than civilian rates (Casper and Bryson, 1998) for both women and men.<sup>6</sup> By applying the rates found for each paygrade or rank to the population of personnel within that paygrade or rank, the actual number of single parents in the Navy can be estimated. In 1999, about 19,500 Navy men and 6,400 Navy women were custodial single parents.



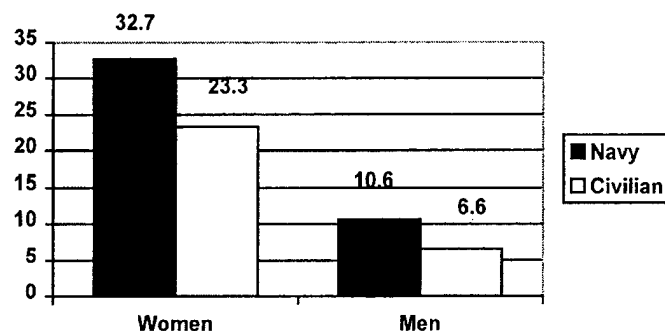
**Figure 3. Percentage of enlisted women who were single parents in 1999, 1997, and 1992.**

<sup>4</sup>  $z(N=4,323) = 7.94, p < .001$

<sup>5</sup>  $\chi^2(4, N = 2,584) = 336.20, p < .001$

<sup>6</sup> For women,  $\chi^2(1, N = 33,963.005) = 134.66, p < .001$

For men,  $\chi^2(1, N = 27,067.847) = 89.94, p < .001$



**Figure 4. Comparison of Navy personnel and civilian single parenthood rates.**

Table 2 compares Navy single and married parents on several demographic variables, and presents the career plans of each group. For enlisted parents, age varied with marital status. Single mothers were younger than married mothers, whereas single fathers were older than married fathers. Race significantly affected the marital status of enlisted mothers. Half of African-American enlisted mothers and almost a third of the African-American officer mothers were single. Being of Hispanic descent did not influence the marital status of enlisted women, but did for women officers.

Parenthood status affected the career plans of enlisted men. Fewer single than married fathers planned to stay in the Navy until they retired. A significant difference was also found in the cross-year comparison of the career plans of women single parents. Fewer single mothers in 1999 intended to reenlist than did in 1997.

**Table 2. Comparison of Single and Married Parents**

	Women				Enlisted Men	
	Officer		Enlisted		Single	Married
	Single	Married	Single	Married		
Mean age <sup>a</sup>	37.14	36.57	29.67	30.98	33.01	31.01
Marital status by race						
White	14%	86%	35%	65%	14%	86%
Black	31%	69%	49%	51%	20%	80%
Other	21%	79%	31%	69%	11%	89%
Marital status by Hispanic descent <sup>c</sup>						
Hispanic	42%	58%	35%	65%	13%	87%
Non-Hispanic	14%	86%	39%	61%	15%	85%
Career plans <sup>d</sup>						
Leave at end of enlistment/obligation	16%	15%	26%	20%	23%	12%
Stay, but not until retirement	2%	4%	10%	8%	8%	7%
Stay until eligible to retire	69%	67%	49%	56%	54%	72%
Undecided	13%	15%	15%	15%	15%	9%

<sup>a</sup> For enlisted women,  $t(1,004) = 2.96, p < .01$ ; for enlisted men,  $t(840) = 3.22, p < .001$

<sup>b</sup> For women,  $\chi^2(2, N = 1,373) = 44.28, p < .001$

<sup>c</sup> For women officers,  $\chi^2(1, N = 376) = 11.61, p < .001$

<sup>d</sup> For enlisted men,  $\chi^2(3, N = 849) = 17.01, p < .001$ ; for enlisted women in 1997 and 1999,  $\chi^2(3, N = 1,006) = 20.85, p < .001$

Navy policy discourages, and at times prohibits, the enlistment or commissioning of single parents with custody. Table 3 indicates that about 20 percent of the personnel who are currently single parents entered the Navy with a child. Two-thirds of the women officers and enlisted men became custodial single parents following a divorce. Enlisted women became single parents as a result of being unmarried when a child was born or through divorce in almost equal proportions. Women have sole custody significantly more often than do men. All of these parents were financially supporting their children, except for one woman officer.



**Table 3. Responses of Single Parents**

	Women		Enlisted
	Officer (N = 62)	Enlisted (N = 391)	Men (N = 126)
Were you a single parent when you entered the Navy?			
No	77%	82%	82%
Yes, without custody	2%	9%	10%
Yes, with custody	21%	8%	8%
How did you become a single parent? <sup>a</sup>			
Divorce	68%	46%	64%
Unmarried when child born	23%	48%	29%
Adoption, death of spouse, or other	10%	6%	7%
Do you currently have custody of your child(ren)? <sup>a</sup>			
Yes, sole custody	87%	85%	44%
Yes, joint custody	13%	15%	56%
Do you financially support or contribute to the support of your child?			
Yes	98%	100%	100%
No	2%	—	—

<sup>a</sup> For women,  $\chi^2 (2, N = 447) = 13.88, p < .001$ ; for gender,  $\chi^2 (2, N = 506) = 13.55, p < .001$

<sup>b</sup> For gender (enlisted),  $\chi^2 (1, N = 516) = 86.24, p < .001$

### Care of Children During Parental Absences

Two new questions in the 1999 surveys queried childcare arrangements when parents deploy or are on an unaccompanied tour. All respondents with children, regardless of their marital status, answered these questions. Table 4 indicates that children of Navy men are almost always cared for by their mother when their father deploys, whereas children of Navy women are far more likely to be in the care of a relative other than their father. This difference is also reflected in the question regarding where children reside during the absence. Children whose fathers deploy remain in their home; children whose mothers deploy are more likely to be uprooted.

**Table 4. Care of Children When Parent is Deployed**

	Women <sup>a</sup>		Men <sup>b</sup>	
	Officer	Enlisted	Officer	Enlisted
Who usually cares for the children when parent deployed <sup>c</sup>				
Their other parent (natural or step-parent)	71%	56%	99%	92%
Grandparent or other relative	21%	37%	–	4%
Someone who is unrelated to child(ren)	9%	7%	1%	4%
Where is the child(ren) cared for? <sup>d</sup>				
In his/her own home	78%	54%	96%	85%
In the home of the caretaker	22%	46%	4%	15%
Has the parent completed a Family Care Certificate? <sup>e,f</sup>				
Yes	79%	75%	47%	63%
No, because has not been at current command 60 days yet	1%	2%	12%	2%
No, has been at command 60 days but has not been told to do so	13%	17%	41%	31%
No, but has been at command 60 days and has been told to do so	7%	6%	–	4%

<sup>a</sup> 51 percent of the officers and 34 percent of the enlisted had never been deployed

<sup>b</sup> Six percent of the officers and 13 percent of the enlisted had never been deployed

<sup>c</sup> For gender,  $\chi^2$  (2,  $N = 1,910$ ) = 375.57,  $p < .001$ ; for women,  $\chi^2$  (2,  $N = 786$ ) = 17.79,  $p < .001$

<sup>d</sup> For gender,  $\chi^2$  (1,  $N = 2,191$ ) = 112.53,  $p < .001$ ; for rank,  $\chi^2$  (1,  $N = 2,191$ ) = 240.67,  $p < .001$

<sup>e</sup> Answered by military-married-to-military and single parents only

<sup>f</sup> For gender,  $\chi^2$  (3,  $N = 991$ ) = 25.38,  $p < .001$

Single parents and military-married-to-military parents are required to have an up-to-date Family Care Certificate (FCC) in their service records (Chief of Naval Operations, 1996). This certificate indicates who will care for any minor children when the parent deploys or is temporarily assigned in another geographic area. Results from the 1997 administration of the surveys indicated that men were significantly less likely to have a valid form than were women. This finding still prevails. Only about half of the male officers who should have a FCC actually do have one. The reason for this disparity appears to be a failure to enforce the directive on the part of commands, rather than refusal by officers to comply with the requirement. This conclusion is based on the finding that all of the officers without a valid FCC also indicated that they had not been notified that they needed to complete the form. There was no difference in the compliance rates of single and military-married-to-military parents.

All Navy personnel are supposed to be briefed on the Family Care Certificate during Navy Rights and Responsibilities, a mandatory training session. However, only 27 percent of the officers and 34 percent of the enlisted personnel indicated that they had received this training at their current commands (not tabled).

## Family Planning Attitudes and Behaviors

The Navy encourages responsible sexual behavior among its personnel through training and by providing medical support for their chosen method of birth control. However, personal attitudes often dictate sexual behavior regardless of the level of knowledge or accessibility of contraceptives. For this reason, all of the surveys in this series on parenthood and pregnancy have included questions on beliefs and behaviors regarding family planning and birth control.

## Attitudes Toward Family Planning and Birth Control

Navy personnel who are planning to have a family should take into consideration the demands of their current and near future military duties. In particular, women ought to have their babies while they are on shore duty, and not when they are assigned to a ship or deployable air squadron. The results of the 1997 survey revealed, however, that one-third of the enlisted women felt that Navy women should have babies whenever they want, and 22 percent of the enlisted men agreed with that attitude. Table 5 shows that there has been a significant shift in this belief. Now, 29 percent of enlisted women believe that a woman's tour should not influence her timing of pregnancy. In addition, more women felt in 1999 than in 1997 that motherhood and a Navy career are incompatible, whereas fewer men endorsed that statement in the present survey.

**Table 5. Family Planning Attitudes of Navy Women and Men**

	Women		Men	
	Officer	Enlisted	Officer	Enlisted
When in her career is it best for a woman to get pregnant? <sup>ab</sup>				
Never, a Navy career and motherhood are incompatible	13%	19%	19%	19%
Whenever she wants to	18%	29%	13%	25%
After her first tour	4%	5%	3%	6%
On shore duty, but not after getting sea duty orders	43%	30%	37%	30%
After receiving shore duty orders, if ship is not deploying	22%	17%	28%	19%
Have you seen "Give Yourself a Chance," the responsible parenting video?				
Yes	4%	5%	3%	4%
No	96%	95%	97%	96%
To whom do you think this video applies?				
It applies to everyone in the Navy	99%	93%	93%	91%
It only applies to unmarried people	1%	5%	7%	4%
It only applies to married people	—	2%	—	6%

<sup>a</sup> A sixth response option, "while on sea duty," was chosen by one percent or less of each group

<sup>b</sup> For gender,  $\chi^2 (4, N = 6,004) = 23.13, p < .001$ ; for rank,  $\chi^2 (4, N = 6,004) = 151.42, p < .001$ ; comparisons of 1999 and 1997 responses of all four groups yielded  $\chi^2$ s that are significant at  $p < .001$

In 1998, a training video titled "Give Yourself a Chance," which had been designed to promote family planning, was released for use by Navy commands (Chief of Naval Education and Training, 1997). Very few of the personnel in the survey sample had seen this video. Thus, the change in women's attitudes concerning the timing of their pregnancies probably cannot be attributed to this training tool. Despite not having viewed the video, the respondents had the correct impression that its message applied to all personnel, regardless of marital status.

The statements shown in Table 6 also appeared in the 1997 survey, with the exception of "birth control is the responsibility of the woman," which was added. However, four other statements from this section of the 1997 survey were not repeated because they had been endorsed by almost everyone in the sample. Specifically, 95 percent (or more) of the 1997 respondents agreed that a woman has the right to say "no" to intercourse, that sex is not an embarrassing topic, that planning ahead for birth control does not spoil the fun of sex, and that using condoms to prevent sexually transmitted diseases is not more bother than it is worth.

**Table 6. Percentage of Women and Men Endorsing Statements Addressing Birth Control**

	Women		Men	
	Officer	Enlisted	Officer	Enlisted
I would feel comfortable going to military health care provider about birth control <sup>a</sup>	90%	80%	77%	69%
I would feel comfortable going to a corpsman about birth control <sup>b</sup>	46%	62%	59%	58%
I would feel comfortable discussing birth control with medical personnel aboard ship <sup>c</sup>	69%	65%	70%	62%
It is important to use birth control until getting married, and then it doesn't matter <sup>d</sup>	12%	25%	17%	34%
I make it my responsibility to discuss birth control with my partner <sup>e</sup>	94%	90%	94%	83%
It is important for men to get involved in birth control <sup>f</sup>	96%	93%	96%	90%
My most recent partner encouraged use of birth control <sup>g</sup>	86%	73%	87%	69%
I've had sex without birth control even though I didn't want a child <sup>h</sup>	12%	32%	27%	39%
Birth control is the responsibility of the woman <sup>i</sup>	25%	25%	6%	10%
I would have sex without birth control if my partner wanted me to	6%	13%	na	na
When a birth control method is not available, you just have to take a chance and hope that a pregnancy doesn't result <sup>j</sup>	1%	4%	3%	7%

Note:  $\chi^2$ s were computed using all five responses in the scale

<sup>a</sup> For gender,  $\chi^2 (4, N = 5,765) = 148.58, p < .001$ ; for rank,  $\chi^2 (4, N = 5,765) = 65.39, p < .001$

<sup>b</sup> For rank,  $\chi^2 (4, N = 5,744) = 62.54, p < .001$ ; for women officers in 1999 Vs 1997,  $z(N = 1,786) = 3.20, p < .001$

<sup>c</sup> For rank,  $\chi^2 (4, N = 5,182) = 41.61, p < .001$

<sup>d</sup> For gender,  $\chi^2 (4, N = 5,670) = 49.37, p < .001$ ; for rank,  $\chi^2 (4, N = 5,670) = 258.62, p < .001$

<sup>e</sup> For gender  $\chi^2 (4, N = 5,622) = 49.76, p < .001$ ; for rank,  $\chi^2 (4, N = 5,622) = 73.41, p < .001$ ; for 1999 Vs 1997 (agree),  $z(N = 12,879) = 21.33, p < .001$

<sup>f</sup> For gender,  $\chi^2 (4, N = 5,967) = 33.06, p < .001$ ; for rank  $\chi^2 (4, N = 5,967) = 46.32, p < .001$ ; for enlisted men in 1999 Vs 1997 (agree)  $z(N = 3,302) = 4.00, p < .001$

<sup>g</sup> For rank,  $\chi^2 (4, N = 4,880) = 150.77, p < .001$

<sup>h</sup> For gender,  $\chi^2 (4, N = 5,654) = 62.53, p < .001$ ; for rank,  $\chi^2 (4, N = 5,654) = 160.90, p < .001$

<sup>i</sup> For gender,  $\chi^2 (4, N = 5,936) = 425.41, p < .001$ ; for rank,  $\chi^2 (4, N = 5,936) = 17.80, p < .001$

<sup>j</sup> For gender,  $\chi^2 (4, N = 5,829) = 150.17, p < .001$ ; for rank,  $\chi^2 (4, N = 5,829) = 82.75, p < .001$ ; for enlisted men in 1999 Vs 1997 (agree)  $z(N = 3,301) = -4.88, p < .001$

Differences were found in the responses of officers and enlisted personnel and of women and men to most of the statements in Table 6. In addition, significant changes from attitudes measured in 1997 were noted. Women officers were less comfortable than they were two years ago when interacting with corpsmen on issues of birth control. In addition, more respondents in all groups indicated in 1999 than in 1997 that they take responsibility for discussing birth control, and more enlisted men felt it is important for men to get involved in contraception. Fewer enlisted men in 1999 than in 1997 indicated that they are willing to take a chance by having sex without birth control.

The prevalence of common misperceptions about fertility and birth control was explored to provide a focus for training on these topics. Table 7 presents the percentage of personnel who agreed with each of the statements. All others admitted either that they didn't know or disagreed. Two other misperceptions that had appeared in the 1997 survey were eliminated from the 1999 surveys, specifically, "Skipping the pill is OK unless you plan to have sex that night" and "Some

prescription drugs interact with birth control pills making them less effective.” The first of these statements was known to be false by over 95 percent of the 1997 respondents, and the second was omitted because of controversy among health care providers as to its accuracy. Only the responses of women to these statements had been analyzed in 1997. The percentages agreeing with the statements were virtually identical to those shown in Table 7, with one exception. Fewer women now believe that taking oral contraceptives leads to a weight gain than before.

**Table 7. Beliefs Concerning Birth Control Efficacy**

	Women		Men	
	Officer	Enlisted	Officer	Enlisted
Condoms are as effective as the pill in preventing pregnancy <sup>a</sup>	18%	30%	31%	42%
Women cannot get pregnant during their menstrual period <sup>b</sup>	17%	10%	21%	15%
Birth control medicines (i.e., pill, Depo-Provera) lead to cancer <sup>c</sup>	7%	13%	7%	9%
If a woman misses 2 or more pills in a row, she must use a supplementary birth control method for the rest of the month to be safe <sup>d</sup>	87%	77%	55%	48%
Almost all women who take the pill gain weight <sup>e</sup>	21%	30%	15%	20%
All methods of birth control are equally effective <sup>f</sup>	1%	6%	1%	8%

Note:  $\chi^2$ s were computed using all three responses in the scale.

<sup>a</sup> For gender,  $\chi^2$  (2,  $N$  = 6,126) = 240.54,  $p$  < .001; for rank,  $\chi^2$  (2,  $N$  = 6,126) = 116.21,  $p$  < .001

<sup>b</sup> For gender,  $\chi^2$  (2,  $N$  = 6,137) = 234.91,  $p$  < .001; for rank,  $\chi^2$  (2,  $N$  = 6,137) = 75.07,  $p$  < .001

<sup>c</sup> For gender,  $\chi^2$  (2,  $N$  = 6,110) = 248.33,  $p$  < .001; for rank,  $\chi^2$  (2,  $N$  = 6,110) = 353.79,  $p$  < .001

<sup>d</sup> For gender,  $\chi^2$  (2,  $N$  = 6,127) = 613.93,  $p$  < .001; for rank,  $\chi^2$  (2,  $N$  = 6,127) = 35.27,  $p$  < .001

<sup>e</sup> For gender,  $\chi^2$  (2,  $N$  = 6,117) = 403.83,  $p$  < .001; for rank,  $\chi^2$  (2,  $N$  = 6,117) = 62.10,  $p$  < .001; for women in 1999 Vs 1997,  $z$  ( $N$  = 8,191) = 23.32,  $p$  < .001

<sup>f</sup> For gender,  $\chi^2$  (2,  $N$  = 6,117) = 87.84,  $p$  < .001; for rank,  $\chi^2$  (2,  $N$  = 6,117) = 207.05,  $p$  < .001

All of the statements were answered differently by women and men, although the percentages of those agreeing sometimes are similar. For example, while very few respondents of either gender thought that birth control medicines lead to cancer, 50 percent of the women knew the statement was false; only 33 percent of the men knew it was false and 59 percent indicated that they did not know whether it was factual or not. For the most part, officers were better informed on these issues than were enlisted personnel.

### Use of Birth Control

Questions regarding contraceptive behavior were worded such that they referred to the respondent or her/his partner. Table 8 shows the percentages of each group who use birth control, which do not differ from the percentages obtained with the 1997 survey. As was previously found, officers are significantly more likely to practice birth control than are enlisted personnel.

**Table 8. Use of Birth Control by Navy Personnel**

	Women		Men	
	Officer	Enlisted	Officer	Enlisted
Do you or your partner usually use birth control? <sup>a</sup>				
Yes	84%	79%	88%	77%
No	16%	21%	12%	23%
If yes, what method do you use? <sup>b</sup>				
Birth control pill	45%	38%	36%	27%
Condom (rubber) alone	11%	14%	16%	21%
Condom with another method	8%	10%	6%	11%
Sterilization	9%	10%	17%	18%
Diaphragm/IUD	4%	1%	2%	1%
Depo-Provera	3%	10%	1%	3%
Withdrawal	2%	3%	2%	4%
Rhythm method	1%	1%	1%	1%
Other	19%	13%	18%	14%
If no, why don't you? <sup>c</sup>				
Pregnant or trying to get pregnant	36%	31%	32%	26%
Abstinent or had no sex in 6 mos.	32%	28%	17%	25%
Infertile	14%	8%	16%	4%
Do not want to use it	6%	17%	10%	20%
Against my (our) religious beliefs	3%	2%	13%	3%
Other	9%	14%	12%	21%

<sup>a</sup> For rank,  $\chi^2 (1, N = 6,095) = 43.88, p < .001$

<sup>b</sup> For rank,  $\chi^2 (5, N = 4,895) = 109.33, p < .001$ ; for gender,  $\chi^2 (5, N = 4,895) = 188.37, p < .001$

<sup>c</sup> For rank,  $\chi^2 (5, N = 1,442) = 63.53, p < .001$ ; for gender,  $\chi^2 (5, N = 1,442) = 29.80, p < .001$

The pill and condoms continue to be the most popular forms of contraception. Because the 1997 survey permitted a choice of more than one method of contraception, no direct comparisons can be made to the current results. A significant gender difference was found in the preferred method of birth control. Women respondents were more apt to use the pill than were the partners of male respondents, whereas men were more apt to indicate that sterilization was their method of choice than were women. The difference found for rank resulted from officers' greater reliance on the contraceptive pill than enlisted personnel, and lesser use of condoms.

The response options to the question of why birth control is not used are different from those in the 1997 survey. Thomas and Uricll (1998) reported that the most frequent write-in response to the question was that the couple was trying to conceive. Because of that, an option was added to the "I am pregnant" response option. In addition, it was obvious that "not sexually active" did not mean abstinent to the 1997 survey sample, since 24 percent of the women who chose that option had become pregnant during the previous year. Consequently, the option was reworded. Finally, a new response was added to accommodate those who do not want to use birth control.

Most personnel who do not use birth control have legitimate reasons for their behavior. Being pregnant or trying to get pregnant was the most common reason given, followed closely by not being sexually active. In addition, a very small percentage have religious beliefs that deter them from using contraception. Significant rank and gender differences were found in responses to this

question. Officers were more likely than enlisted to indicate that pregnancy was the reason for their non-use of contraception, while enlisted were more likely than officers to say that they did not want to practice birth control. The primary cause of the gender difference on this question was the higher rate of abstinence among women than men.

Support for contraception by military medical personnel is shown in Table 9. In 1997, 95 percent of the women in the sample indicated that Navy doctors prescribed the method of birth control that they requested. This question was not asked in 1999 because of the virtual unanimity of experience. Instead, new questions concerning emergency contraception were administered. Emergency contraception involves two doses of oral contraceptives taken 12 hours apart to prevent ovulation or implantation of an ovum. The appropriate number of pills and information regarding how they should be taken are prepackaged in a kit and are available at Navy pharmacies. Women can use this method within 72 hours of having unprotected intercourse to prevent an unwanted pregnancy.

**Table 9. Support for Contraception by Military Medical Providers**

	Women		Men	
	Officer	Enlisted	Officer	Enlisted
When was your last physical? <sup>a</sup>				
Less than 1 year ago <sup>b</sup>	89%	92%	51%	49%
1 to 2 years ago	na	na	27%	31%
3 to 4 years ago	na	na	18%	17%
5 or more years ago	na	na	4%	4%
Which of the following topics was discussed at that time?				
Birth control methods <sup>c</sup>	59%	66%	3%	15%
Sexually transmitted diseases <sup>d</sup>	23%	42%	13%	29%
Emergency contraception <sup>e</sup>	2%	10%	—	3%
Do you know what emergency contraception is?				
Yes	71%	57%	42%	32%
No	29%	43%	58%	68%
Is emergency contraception available where you are currently stationed? <sup>f</sup>				
Yes	19%	15%	8%	8%
No	4%	7%	5%	9%
Don't know	77%	78%	87%	83%

<sup>a</sup> For women, the question was worded, "In the past year, did you have a routine pelvic exam?"

<sup>b</sup> For gender,  $z$  ( $N = 6,132$ ) = 36.72,  $p < .001$

<sup>c</sup> For rank,  $z$  ( $N = 5,814$ ) = 8.358,  $p < .001$ ; for gender,  $z$  ( $N = 5,814$ ) = 40.901,  $p < .001$ ; for women 1999 Vs 1997,  $z$  ( $N = 7,944$ ) = -6.579,  $p < .001$ ; for men 1999 Vs 1997,  $z$  ( $N = 4,213$ ) = 8.055,  $p < .001$

<sup>d</sup> For rank,  $z$  ( $N = 5,814$ ) = -12.547,  $p < .001$ ; for gender,  $z$  ( $N = 5,814$ ) = 10.626,  $p < .001$

<sup>e</sup> For rank,  $z$  ( $N = 5,942$ ) = -9.311,  $p < .001$ ; for gender,  $z$  ( $N = 5,942$ ) = 10.002,  $p < .001$

<sup>f</sup> For rank,  $\chi^2$  (1,  $N = 5,978$ ) = 62.63,  $p < .001$ ; for gender,  $\chi^2$  (1,  $N = 5,978$ ) = 374.67,  $p < .001$

<sup>g</sup> For rank,  $\chi^2$  (2,  $N = 6,085$ ) = 20.66,  $p < .001$ ; for gender,  $\chi^2$  (2,  $N = 6,085$ ) = 79.02,  $p < .001$

Fewer men than women had a physical examination in the past year. Moreover, birth control, STDs, and emergency contraception were discussed with more women than men, and with more enlisted than officers. The significant differences found between 1997 and 1999 for discussions

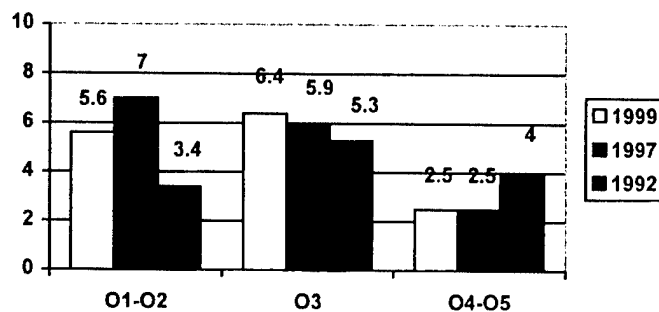
of birth control were bi-directional. With enlisted men, the change indicated that more information on birth control was being provided now; with enlisted women, medical providers were discussing contraception less often than they had 2 year ago. Not surprisingly, more women than men knew what emergency contraception is, as did more officers than enlisted personnel. Although few respondents knew that emergency contraception is available to them, more women than men were aware of this fact.

## Results Regarding Pregnancy

Pregnancy rates are measured in two ways in the survey. The point-in-time rate is based on the question, "Are you pregnant now?" This rate is believed to be the most reliable indicator available to the Navy of the prevalence of pregnant women on active duty. The other measure is the annual pregnancy rate, which is derived from questioning whether the respondent became pregnant during the previous fiscal year. The 1999 and 1997 surveys are the only versions that included this question.

### Point-in-Time Pregnancies

Officers were not included in the samples for the Survey of Parenthood and Pregnancy until 1992. As a consequence, only three comparisons of their pregnancy rates across time are possible. These rates are as follows: 4.5 percent in 1992, 4.8 percent; in 1997, and 4.6 percent in 1999. Figure 5 shows some variation in the rates by rank, but not differences that are statistically significant.

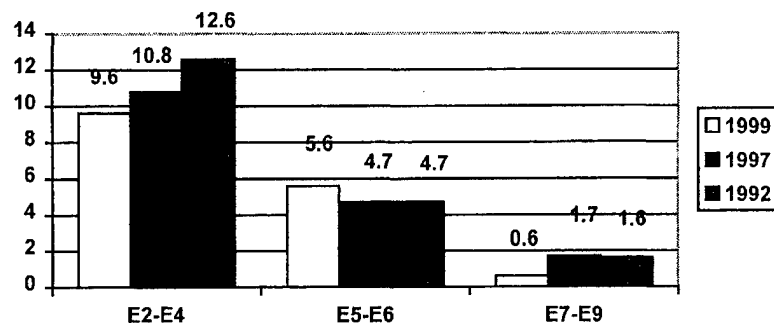


**Figure 5. Point-in-time pregnancy rate of women officers in 1999, 1997, and 1992.**

The point-in-time pregnancy rate of enlisted women has also been very stable. It was 8.6 percent in 1988, 8.9 percent in 1990, 8.4 percent in 1992, and 8.4 percent in 1997. With the current survey, a rate of 7.7 percent was found, which is lower than in 1997, but not significantly so. As shown in Figure 6, rates differed significantly by paygrade<sup>7</sup>. Women who were E-4 and below accounted for 74 percent of the point-in-time pregnancies.

<sup>7</sup>  $\chi^2 (2, N = 2,632) = 26.38, p < .001$





**Figure 6. Point-in-time pregnancy rate of enlisted women in 1999, 1997, and 1992.**

### **Pregnancies in FY98**

Thomas and Uriell (1998) reported that 10.2 percent of the officers and 16.2 percent of the enlisted women had become pregnant during the previous fiscal year (FY96). Comparable figures found for FY98 pregnancies are 9.4 percent for officers and 11.9 percent for enlisted women. The drop in the annual rate of enlisted women is statistically significant ( $z(N = 6,423) = -4.82, p < .001$ ). The Navy annual pregnancy rate (officers and enlisted) during FY98 was 11.2 percent.

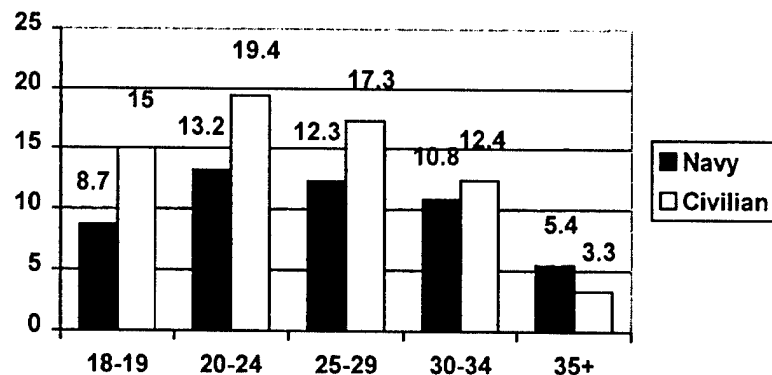
The most recently available national birthrate data (Ventura et al., 1999) were obtained for comparison to Navy pregnancy rates. The civilian rates are for births only, and do not include elective abortions or miscarriages. However, the Alan Guttmacher Institute monitors abortions and has developed a formula for determining total number of miscarriages (Henshaw, 1998). Thus, the pregnancy rate of civilian women can be derived by summing the number of births, abortions, and estimated number of miscarriages.

Because pregnancy rates are moderated by age, Figure 7 presents the data by age group at the time of conception. Navy women in the three youngest groups had significantly lower rates<sup>8</sup> than civilian women. Navy women 35 and older had a significantly higher rate than did their civilian cohorts.<sup>9</sup>

An analysis was performed on the type of duty assignment at the time of conception. Sea duty, as defined by the Navy, includes assignment to ships, deployable squadrons, and other deployable units. All other duty types are considered shore duty. In FY96, women on sea duty had a significantly lower annual pregnancy rate than women on shore duty (Thomas and Uriell, 1998). In FY98, the rate for women on sea duty was 8.7 percent, as compared to 12.2 percent for those ashore. This difference is statistically significant ( $z(N = 3,565) = -3.043, p < .01$ ).

<sup>8</sup> For 18 - to 19-year olds,  $z(N = 3,651,390) = -3.48, p < .001$ ; for 20 - to 24-year olds,  $z(N = 8,589,164) = -5.349, p < .001$ ; for 25- to 29-year olds,  $z(N = 9,442,729) = -3.57, p < .001$

<sup>9</sup>  $z(N = 22,169,662) = -3.03, p < .01$



**Figure 7. Comparison of Navy and civilian annual pregnancy rates.**

Table 10 presents pregnancy rates in FY98 by marital status, Hispanic heritage, and racial group membership. Twenty-one percent of enlisted women who were married to another service member became pregnant, as compared to 15 percent of those married to a civilian. Among officers, the military status of the father did not affect pregnancy rates. Eight percent of the unmarried or separated enlisted women and two percent of the unmarried officers became pregnant. Pregnancy rates did not differ by race, even though African-American women in the U.S. have higher pregnancy rates than Caucasian and Asian women (Ventura, Martin, Curtin, and Matthews, 1999). In all five of the Navy surveys, the pregnancy rates of African-Americans have not differed from those of white women.

**Table 10. FY98 Pregnancy Rates by Marital Status, Hispanic Origin, and Race**

	Officer	Enlisted
Marital Status <sup>a</sup>		
Married to service member	14%	21%
Married to civilian	15%	15%
Single, never married	1%	8%
Divorced, separated or widowed	4%	8%
Of Hispanic origin	8%	14%
Race		
White	9%	12%
African-American	10%	12%
Asian/Pacific Islander	11%	10%
Other	10%	12%

<sup>a</sup>  $\chi^2 (2, N = 402) = 41.18, p < .001$

Almost 80 percent of the pregnancies of officers, but only 40 percent of the pregnancies of enlisted women were planned (see Table 11). This latter figure is below the estimate of unplanned pregnancies among civilian women (Henshaw, 1998), but not significantly so. Consistent with their intentions to become pregnant, very few of the officers were using birth control; 73 percent of the enlisted women who became pregnant were not using birth control. While some of these women had intended to become pregnant, 55 percent (not tabled) of the enlisted women who had an unplanned pregnancy had engaged in unprotected sex.

The percentages associated with the method of birth control being used when the unwanted pregnancy occurred are not rates of contraceptive failure for these methods, but do provide a focus for training. In clinical trials, chemical and barrier methods of birth control have exceedingly low failure rates. Under typical use, however, these rates are much higher. During the first 6 months of use, for example, 4.3 percent of women using the pill will become pregnant (Fu, Darroch, Haas, and Ranjit, 1999).

**Table 11. Events Associated With Conception for Women Who Became Pregnant in FY98**

	Officer	Enlisted
Was your pregnancy planned? <sup>a</sup>		
Yes	79%	40%
No	21%	60%
Were you using birth control? <sup>b</sup>		
Yes	9%	27%
No	91%	73%
What method of birth control were you using?		
Birth control pill	46%	59%
Condom	9%	16%
Rhythm, withdrawal	18%	8%
Spermicidal jelly	9%	—
Depo-Provera	—	12%
Other	18%	5%
What was your marital status when you became pregnant? <sup>c</sup>		
Married	90%	52%
Single, never married	6%	40%
Divorced, separated or widowed	4%	8%
What was the father's military status? <sup>d</sup>		
Civilian	61%	29%
In Navy	36%	60%
In another service	3%	11%

<sup>a</sup>  $\chi^2 (1, N = 401) = 43.25, p < .001$

<sup>b</sup>  $\chi^2 (1, N = 399) = 13.15, p < .001$

<sup>c</sup>  $\chi^2 (2, N = 400) = 44.54, p < .001$

<sup>d</sup>  $\chi^2 (1, N = 402) = 30.82, p < .001$

Although Table 10 indicates that the pregnancy rate among unmarried enlisted women was 8 percent, this table shows that almost half of the women who became pregnant were single, divorced, separated, or widowed. This apparent inconsistency is due to the high ratio of single to married women among E-2 to E-4 personnel, who accounted for 75 percent of the pregnancies occurring in FY98. The table also indicates that over 70 percent of the biological fathers were in the military. The babies of officers, by contrast, were more likely to be fathered by civilian men.

Navy women who become pregnant are required to inform their commands promptly of their condition (Department of the Navy, 1995). Table 12 shows that three-fourths of the enlisted women, but less than half of the officers told their commands within one week of verifying their pregnancy. The major reason that officers ignored the requirement is that they wanted to delay their commands "finding out." Further analysis of their responses revealed that 19 percent of the

officers and 22 percent of the enlisted women did not tell their commands until they were at least 10 weeks pregnant.

**Table 12. Interactions of Pregnant Women With People in Their Commands**

	Officer	Enlisted
Did she notify the command within 1 week of verifying pregnancy? <sup>a</sup>		
Yes	44%	76%
No, because she wanted to be sure she was pregnant	8%	5%
No, because she wanted to delay command finding out	22%	5%
No, some other reason	26%	14%
Did command offer information on obtaining financial support from the father?		
No, since woman was married they probably thought she didn't need it	84%	51%
No	16%	40%
Yes	—	9%
Did her supervisor treat her differently after being told she was pregnancy?		
No	56%	39%
Yes, showed more concern for her welfare	26%	38%
Yes, with less respect, avoided or ignored her	14%	19%
Yes, was overprotective	4%	4%
Did coworkers treat her differently after being told she was pregnant?		
No	51%	35%
Yes, showed more concern for her welfare	37%	41%
Yes, were overprotective	5%	6%
Yes, with less respect, avoided or ignored her	7%	18%

<sup>a</sup>  $\chi^2$  (3, N = 387) = 39.97,  $p < .001$

One of the responsibilities of commands toward pregnant women is “to ensure that service members will be afforded the opportunity to take advantage of available legal assistance for advice regarding their options in establishing paternity” (Department of the Navy, 1995). Results from the previous survey indicated that only 17 percent of the single women were informed that such help was available (Thomas and Uricll, 1998). Table 12 shows that only 9 percent of the women who became pregnant in FY98 were offered assistance, which represents 18 percent of those who were single.

Treatment of women by their supervisors and coworkers after they became pregnant was also queried in the survey. For the most part, their treatment either did not change or more concern was shown for their welfare after they became pregnant. The results in regards to supervisors do not differ from the results of the last survey. Since the response options were changed for the question of coworker treatment, no comparison to 1997 results was possible.

Table 13 addresses assignment issues associated with these pregnant women. Significantly fewer of the officers than enlisted women were in a deployable unit when they became pregnant. This finding reflects the difference in the assignments of these two groups Navy-wide. During FY98 16 percent of women officers and 33 percent of enlisted women were in deployable units. None of the officers and 25 percent of the enlisted were in a deployed status or within 6 months of a deployment when they became pregnant. Very few of the women on shore duty had orders to sea duty when they conceived. Consistent with their type of duty assignments, more of the

enlisted women than officers were transferred as a result of becoming pregnant. After being transferred, few enlisted women continued working in their rating. Too few officers were transferred for meaningful analysis.

**Table 13. Assignments of Women Who Became Pregnant in FY98**

	Officer	Enlisted
Type of command where assigned when woman became pregnant <sup>a</sup>		
Sea duty <sup>b</sup>	9%	28%
Shore duty	91%	72%
If on sea duty, what cycle was the unit in when pregnancy occurred?		
Not deployed or within 6 months of deployment	100%	75%
Deployed	—	8%
Within 6 months before going on deployment	—	17%
Did woman have orders to sea duty when became pregnant? <sup>c</sup>		
Yes	1%	9%
No	99%	91%
Was woman transferred (or is scheduled for transfer) due to pregnancy?		
No, she continued to work in same place <sup>d</sup>	84%	65%
Not scheduled to deploy with orders to shore duty	8%	8%
Yes, from sea to shore duty	1%	14%
Yes, to another work center in same command	—	5%
Yes, some other place	7%	8%
Type of work after transfer <sup>e</sup>		
Same as before but in a different place	na	28%
Administrative/clerical not in occupational specialty	na	55%
Duty office/phone watch	na	5%
Other	na	12%

<sup>a</sup>  $\chi^2 (1, N = 395) = 13.91, p < .001$

<sup>b</sup> Deployable unit, such as ship, aviation squadron, or construction battalion

<sup>c</sup> Based solely on women who were on shore duty

<sup>d</sup>  $z (N = 387) = 3.367, p < .001$

<sup>e</sup> Only three officers in the sample were transferred

Table 14 is based solely on E-2 to E-6 enlisted women who became pregnant while assigned to a ship. No E-7 to E-9 women and only two women officers conceived while assigned to a ship, and therefore they are not included in the table. On average, pregnant enlisted women were moved ashore in the 16th week of their pregnancy. Yet, despite the requirement that pregnant women in ships be transferred by the 20th week, 20 percent of the respondents claimed to have remained aboard longer. Somewhat over half of these women had 19 or more months left to serve in their ships before their scheduled dates to be transferred to shore duty. Three-fourths of the transfers occurred to comply with Navy pregnancy policy or because a medical provider requested that the woman be moved.

**Table 14. Transfer of Pregnant Enlisted Women from Ships**

How many weeks pregnant were you when transferred?	
10 weeks or less	26%
11 to 15 weeks	18%
16 to 20 weeks	36%
21 or more weeks	20%
How long before your rotation date were you transferred?	
6 months or less	17%
7 to 12 months	10%
13 to 18 months	19%
19 to 24 months	26%
25 or more months	27%
Who requested that you be transferred?	
Navy policy required that I be transferred	63%
Doctor or other medical person	11%
I asked for the transfer	12%
Someone above my supervisor	3%
I don't know who requested it	10%

More of the women responding to the present survey delivered live babies than did those responding to the 1997 survey. Moreover, the pregnancy outcome for women on sea duty in FY98 was significantly different from the outcome in FY96 ( $\chi^2$  (1, N = 153) = 4.43,  $p < .05$ ). Thomas and Uriell (1998) reported that enlisted women on sea duty had significantly more still births, miscarriages, and ectopic pregnancies than did women on shore duty. As shown in Table 15, there was little difference in the percentage of adverse outcomes for women ashore or on sea duty in FY98.

**Table 15. Outcome of FY98 Pregnancies by Sea/Shore Assignment**

	Officer <sup>a</sup>	Enlisted	
		Shore	Sea
Term birth (after 36th week)	79%	75%	75%
Premature birth (20 <sup>th</sup> –36th week)	5%	7%	3%
Stillbirth (20th week or later)	--	1%	--
Miscarriage (before 20th week)	13%	8%	15%
Ectopic pregnancy	--	2%	1%
Elective Abortion	3%	6%	7%

<sup>a</sup> All officers, since there were too few on sea duty to analyze separately

Due to concerns over adverse pregnancy outcomes among Navy women, a series of questions addressing known pregnancy hazards was included in the 1999 survey. Women were asked if they had smoked, drunk alcoholic beverages, or been exposed to one or more substances or conditions that might harm a fetus. Table 16 reveals that very few encountered any of these hazards, with the exception of having to stand for most of an 8-hour shift. Because sexually transmitted diseases (STDs) can also affect a developing fetus, women who had become pregnant in FY98 were asked if they had a STD in the previous 12 months. Only 7 percent of the enlisted women and 2 percent of the officers answered affirmatively. Because the number of affected

women is so small, it was not possible to correlate having a STD or exposure to other hazards with pregnancy outcome.

**Table 16. Prenatal Exposure to Potential Hazards**

	No	Yes		
		1 <sup>st</sup> Trimester	2 <sup>nd</sup> Trimester	3 <sup>rd</sup> Trimester
Smoked 10 or more cigarettes daily				
Officer	99%	—	—	—
Enlisted	92%	7%	—	1%
Drank alcohol several times weekly				
Officer	100%	—	—	—
Enlisted	92%	7%	—	1%
Exposed to radioactivity/radiation				
Officer	96%	4%	—	—
Enlisted	91%	6%	1%	2%
Wore ear plugs at work due to noise				
Officer	96%	3%	1%	—
Enlisted	89%	9%	2%	—
Exposed to whole body vibration				
Officer	97%	1%	1%	—
Enlisted	94%	5%	—	1%
Stood most of an 8-hour shift				
Officer	85%	8%	5%	2%
Enlisted	78%	15%	4%	3%
Enrolled in heat protection program				
Officer	99%	1%	—	—
Enlisted	99%	—	—	—

After the birth of their babies and a period of convalescence, only 12 percent of the enlisted women who had been transferred due to pregnancy returned to their original command. Table 17 shows that about 40 percent stayed in the unit they had been assigned to during their pregnancy. The remainder completed their allotted sea duty or shore duty tour in another command. The percentages for officers do not differ significantly from those of enlisted, and enlisted postpartum assignments did not differ by paygrade. For the most part, women who had new assignments found them to be as career enhancing as their previous assignments and in some cases, even more so.

**Table 17. Work Experiences After Childbirth**

	Officer	Enlisted	
		E2-E4	E5-E9
Did you return to the unit you were in prior to pregnancy?			
Yes	27%	10%	16%
No, I returned to the unit I had been in when pregnant	27%	40%	42%
No, I went to a different shore duty command	45%	24%	21%
No, I went to a different ship or deployable command	—	25%	21%
Was your new assignment as career enhancing as the assignment you had before the pregnancy? <sup>a</sup>			
It was equally career enhancing	60%	53%	50%
It was not as career enhancing	20%	20%	39%
It was more career enhancing	20%	27%	11%
Were you treated differently by coworkers because you had a baby?			
No	72%	64%	79%
Yes, with more concern or respect	13%	23%	14%
Yes, with less respect	9%	9%	6%
Other	6%	4%	1%
Were you treated differently by your supervisor because you had a baby?			
No	68%	68%	77%
Yes, with more concern or respect	12%	18%	14%
Yes, with less respect	15%	11%	8%
Other	6%	3%	1%

<sup>a</sup> Only 10 officers in the sample had a new assignment

Treatment of new mothers by coworkers and supervisors was quite positive. Actually, new mothers were treated better than they had been during their pregnancy. When the responses for coworkers that are shown in Table 17 are compared to those in Table 12, a significant difference is found ( $\chi^2 (3, N = 533) = 56.94, p < .001$ ). The comparison of supervisory treatment before and after childbirth also yielded a significant difference ( $\chi^2 (3, N = 537) = 54.32, p < .001$ ).

Navy women are given 60 days convalescent leave to recover from a normal delivery, and longer if medically indicated. Some women use their accrued leave to extend this period following childbirth. Table 18 shows that almost all returned to duty within the 60-day period. Almost three-fourths of the enlisted women returned within 45 days of giving birth, as did slightly over half of the officers.



**Table 18. Postpartum Fitness and Breast Feeding**

	Officer	Enlisted	
		E2-E4	E5-E9
Number of days off after delivery			
Less than 45	57%	76%	70%
45 to 59 days	28%	19%	24%
60 days or more	14%	5%	6%
Had difficulty passing PT test 6 month after childbirth			
No	74%	52%	69%
Yes, but had difficulty passing before pregnancy	2%	9%	4%
Yes, but did not have difficulty passing before	24%	39%	27%
Had difficulty meeting weight standard after pregnancy			
No	72%	64%	65%
Yes, but had difficulty meeting it before pregnancy	6%	5%	6%
Yes, but did not have difficulty meeting it before	22%	31%	29%
If breast feeding, was she given time to pump breasts or breast feed baby? <sup>a,b</sup>			
Yes, during breaks or meals	24%	21%	31%
Yes, when she needed to pump	52%	29%	50%
No	24%	51%	19%

<sup>a</sup> Fifteen percent of officers and 57% of enlisted women were not nursing their babies

<sup>b</sup>  $\chi^2$  (2,  $N = 173$ ) = 6.46,  $p < .05$

Six months following childbirth, women must resume taking the annual physical fitness test and must have returned to their normal weight. About a quarter of the women officers and somewhat more of the enlisted women had difficulty meeting these standards. For the most part, these women had no difficulty passing these tests before their pregnancies.

The final question in Table 18 addresses breast-feeding. Eighty-five percent of the officers and 43 percent of the enlisted women were nursing their babies when they returned to work. Of that group, 24 percent of the officers and 41 percent of the enlisted women were not given time to pump their breasts or nurse their babies, even during breaks or meals. Significantly more of the E-5 and above women were able to continue breast-feeding than E-4 and below nursing mothers.<sup>10</sup>

Since the 1997 survey was administered, the delivery of medical care to military personnel has changed in a fundamental way. Each of the military services previously was responsible for the delivery of health care to its personnel and their dependents. TRICARE, the new system, brings together the medical resources of all the services and supplements them with networks of civilian health care professionals. By replicating questions concerning women's health care that had appeared in the 1997 survey, it was possible to investigate whether the level of service has changed under TRICARE. Table 19 shows the response distributions for both 1997 and 1999.

Bureau of Medicine (BUMED) standards state that women should be able to obtain an appointment for a routine gynecological examination within 30 days of requesting it, and be informed of the results of their Pap smear within 2 weeks of the examination. As shown in Table 19, the standard for appointments was met for 90 percent of the women in the sample. Only

<sup>10</sup>  $\chi^2$  (2,  $N = 109$ ) = 9.59,  $p < .01$

about half of the sample was informed of their Pap smear results on time, however. Even so, the percentage represents a significant improvement in the treatment of women officers.

**Table 19. Gynecological Care in 1999 and 1997**

	Officer		Enlisted	
	1999	1997	1999	1997
How long did you have to wait to get your last GYN appointment? <sup>a</sup>				
Less than 30 days	92%	90%	90%	92%
More than 30 days	8%	10%	10%	8%
How long did you wait for results of your Pap smear? <sup>b</sup>				
Less than 2 weeks	56%	42%	55%	53%
More than 2 weeks	44%	58%	45%	47%
Have you had a mammogram? <sup>c,d</sup>				
Yes	90%	90%	86%	61%
No	10%	10%	14%	39%
Why haven't you had a mammogram? <sup>e</sup>				
I've been too busy	52%	na	34%	na
It is too hard to get an appointment	19%	na	27%	na
No one told me that I needed one	10%	na	25%	na
Other	18%	na	15%	na

<sup>a</sup> For enlisted,  $\chi^2 (1, N = 5,774) = 8.08, p < .01$

<sup>b</sup> For officers,  $\chi^2 (1, N = 1,626) = 31.59, p < .001$

<sup>c</sup> Asked of women who were 40 years of age or older

<sup>d</sup> For enlisted,  $\chi^2 (1, N = 897) = 34.17, p < .001$

<sup>e</sup> This question was not asked in the 1997 survey

Thomas and Uriell (1998) reported that enlisted women aged 40 and over were significantly less likely to have had a mammogram than were women officers in that age group. This survey found that there has been a significant increase in the proportion of enlisted women who have had their baseline mammogram. The primary reason given why the remaining women did not get their mammograms was that they have been too busy.

## Discussion

### Parenthood

For the past decade, the number of enlisted men who are single parents with custody of their child has been steadily increasing. Thomas and Uriell (1997), noting this trend in the previous survey, hypothesized that "this finding probably results from men's greater involvement in fatherhood than in the past, and a willingness on the part of divorce courts to award them custody" (p. 32). These authors also suggested that an increase in the divorce rate among Navy personnel may have occurred, but they lacked the necessary data to investigate this possibility. A comparison of the marital status of enlisted men in the 1997 and 1999 samples revealed that the percentage of divorced men had increased significantly, providing a partial explanation for the rise in single parenthood rates.

The demographic shift in marital status of male parents will increase the need for support services that target school-aged children. Because single fathers are predominately senior petty officers, traditional childcare programs oriented toward infants and preschoolers will not suffice. More Family Home Care that provides before and after school supervision will be needed, along with day camp type programs during school holidays. Support groups for single parents, while traditionally attended by women, may wish to actively solicit single fathers (now that they number almost 20,000).

The rate of single parenthood among women, while double that of men, has not changed over the past 10 years. As has been found in the past, enlisted women became single parents as a result of divorce or by being unmarried when the child was born in almost equal proportions. Another consistent finding is that the rate of single parenthood among black women is significantly higher than among white women or women in other racial groups.

Women continued to be in compliance, to a greater extent than men, with the requirement for single parents and military-married-to-military parents to have a Family Care Certificate (FCC). An increase occurred, however, in the compliance rate of enlisted men, but not of male officers. Although male officers without a FCC indicated that they had not been told it was needed, it is difficult to believe that they had never attended Navy Rights and Responsibilities, where the requirement is discussed. Female officers had a high compliance rate, rendering invalid the hypothesis that the policy is enforced only with enlisted personnel. However, very few of the male officers in the sample were single parents, and those married to another service member probably considered their wives' FCC plans to be adequate preparation for the care of their dependents.

The 1999 survey investigated childcare arrangements when parents (married and single) deploy. Dependent children of Navy men are almost always cared for by their mother, but a very different pattern emerged for Navy women. Their children are more likely to reside with and be in the care of a relative other than their father. Because these relatives are unlikely to be associated with the military, commands need to ensure that arrangements are made for the child to have continued access to military benefits and services during his/her mother's absence.

### **Family Planning Attitudes and Behaviors**

Several changes in attitudes toward birth control and family planning were noted. For the most part, these changes were in the desired direction. More women in 1999 than in 1997 believed that when planning a pregnancy women should take their rotation schedule into consideration. More men in 1999 than in 1997 felt that it is important for men to become involved in contraception, and fewer indicated that they would risk sex without birth control. Additionally, more personnel of both sexes said that they are taking responsibility for birth control. Thus, it appears that efforts to teach responsible sexual behavior are having a positive effect.

All attitudinal changes were not in the desired direction, however. More enlisted women believed in 1999 than in 1997 that motherhood and a Navy career are incompatible. Because more women are being assigned to combatant ships than before, the number of mothers being separated from their children is increasing, as is the length of separation. Moreover, the majority

of these children are being uprooted from their homes, schools, and neighborhoods because relatives other than their fathers are caring for them. Apparently, a growing number of women are realizing how difficult it is to serve in the Navy and fulfill the responsibilities of motherhood. Another negative finding was that the percentage of women officers who are uncomfortable discussing contraception with a corpsman has increased. This unease may be due to rank or gender differences between women officers and enlisted male corpsmen. It also may arise from fear of indiscretion on the part of corpsmen. Unmarried women, in particular, do not want shipmates discussing their (the women's) sex life.

The percentages of women and men who use contraceptives were unchanged from those found in 1997. More insight into why birth control is not used was obtained from the current survey than from previous ones. Most personnel are not engaging in irresponsible behavior but have valid reasons for not using birth control. Pregnancy and not being sexually active were cited as reasons by over half of the respondents. Of concern, however, is the finding that 17 percent of the enlisted women and 20 percent of the enlisted men indicated that they didn't want to use contraceptives. Such beliefs need to be explored further before an effort to change their behavior is initiated.

The training video, "Give Yourself a Chance," had been seen by very few people in the sample. The video has been available for use by commands since early 1998 on a request basis. In the opinion of the authors, it is an excellent video that needs to be vigorously promoted.

Medical professionals continued to discuss birth control and STDs more often with women than men during physical examinations. This finding may be expected given that women's annual exams focus on their reproductive system and men's exams do not. Despite this gender difference, there was an increase in the number of enlisted men who indicated that birth control was a topic of discussion during their last physical. Emergency contraception was seldom explained to either women or men during their physicals. However, most women, but less than half of the men, think that they know what emergency contraception is. Very few personnel of either gender know that it is available to them.

### **Pregnancy**

The point-in-time pregnancy rate in 1999 was under eight percent for the first time in over a decade. While this decline does not represent a statistically significant change, it is encouraging. This method of measuring pregnancy is believed to be the most accurate accounting of its prevalence that is available to the Navy. The rate includes early pregnancies that will be terminated through an elective abortion or a miscarriage. Many such pregnancies are not reported to commands, do not result in hospitalization, and thus are not captured in other data collection efforts. Because the point-in-time rate is based on the same question that has appeared in all versions of the survey, Navy management can track trends in pregnancy rates across time, and can use the information to judge the effectiveness of interventions. Additionally, pregnancy rates by paygrade are useful for projecting the anticipated number of pregnancies within commands based on command demographics.

In FY98 slightly under 12 percent of the enlisted women in the sample became pregnant, a figure that is significantly below the 16 percent reported for FY96. Moreover, Navy women

under the age of 30 had a significantly lower pregnancy rate than their civilian age-cohorts. Thus, the data indicate that the sexual behavior of Navy women is more responsible than it has been in the past. This conclusion is supported by the finding that women on sea duty had a lower pregnancy rate than women ashore. Yet, because half of the women who had an unplanned pregnancy were not using birth control, more effort is needed to reduce that percentage still further. The number of women who became pregnant while using birth control indicates that additional training or information is needed to improve the efficacy of birth control methods. The birth control pill, the most popular form of contraception among Navy women, also appears to be the least well understood.

Another concern raised by the analysis was the number of women who failed to inform their commands promptly of their pregnancy. About one-fifth of the women apparently did not want their commands to know about their pregnancy until it became obvious. Although the survey did not probe why they felt this way, an effort needs to be initiated to end such behavior. Women must be made to realize that they could be endangering the health and safety of their unborn child when they continue to work in many Navy environments.

As was also noted in 1997, very few pregnant unmarried women were offered the legal counseling that is directed by the Navy pregnancy policy. The need for paternity counseling was emphasized following the last survey (Thomas and Uriell, 1997). No improvement in compliance with the requirement has been found.

After they became pregnant, most women were treated by supervisors and coworkers the same as in the past or with greater concern. Enlisted women who were assigned to a ship remained aboard, on average, until the 16th week of their pregnancy. Their transfers to shore duty usually occurred almost two years prior to their scheduled rotation date.

More live births resulted from pregnancies in FY98 than in FY96. The higher proportion of miscarriages, still births, and ectopic pregnancies reported for women on sea duty by Thomas and Uriell (1998), as compared to women on shore duty, was not found with this sample. Perhaps a causative factor was the very low exposure rate to potential hazards that was found for women who became pregnant in FY98. Since no information on exposure is available for the previous sample, this possibility cannot be investigated.

After childbirth, most of the women who had been transferred either stayed with their new units or were transferred to another unit to complete their interrupted sea or shore tour. Very few returned to their original commands. These new mothers reported being treated better by both coworkers and supervisors than they had been during their pregnancy. However, many of the enlisted mothers found that they had to discontinue breast-feeding after they returned to duty. Why nursing or extracting milk was not possible even during breaks and meal times cannot be inferred from the data. Nonetheless, given the proven benefits to infants of mothers' milk, this question needs to be explored further. Another postpartum problem encountered by women was meeting the Navy weight and physical fitness standards at 6 months following childbirth.

### **Women's Health Care**

Under TRICARE, 90 percent of Navy women were able to obtain a routine gynecological appointment within 30 days, but only half received the results of their Pap smears within 2 weeks

following their exams. These findings are very similar to what was reported in 1997. A very encouraging change that has occurred is the increase in the number of 40-year-old and older enlisted women who have had a baseline mammogram. The few women in the target group who have not had mammograms indicated they were too busy, rather than difficulty in obtaining an appointment as the causative factor for their failure to have this important procedure. The increase in mammograms represents significant progress toward correcting a medical shortcoming that had been highlighted in briefings following the 1997 survey.

## **Conclusions and Recommendations**

A global conclusion to be drawn from the analysis of the 1999 Survey of Parenthood and Pregnancy is that improvements have occurred in both attitudes and behaviors of Navy personnel. For example, pregnancy rates for officers and enlisted women are stable or slightly lower than those reported in 1997 and women who become pregnant while serving in deployable commands did not experience more fetal losses than women serving on shore duty. There remain, however, some attitudes and behaviors that are issues of concern for personnel managers and policy makers.

### **Parenthood**

**Conclusion:** The significant increase in the percentage of single fathers that was found among enlisted men mirrors census data. The percentage of single mothers in the Navy is unchanged from previous surveys.

**Recommendation:** The need for more before-and-after school and vacation programs designed to provide activities and supervision for school-age children should be assessed.

**Conclusion:** The percentage of single and military-married-to-military enlisted fathers with a Family Care Certificate (FCC) has increased since 1997. Still, over a third of enlisted fathers, and over half of officer fathers who are covered by the requirement do not have a FCC. Women's compliance is higher but not optimal.

**Recommendation:** The FCC requirement needs to be re-emphasized, particularly in view of the increase in male single parents. A mandated annual review of the service records of all affected personnel to verify the existence of an up-to-date FCC would accomplish this goal.

**Conclusion:** When Navy mothers deploy, their children are more likely to be uprooted and placed in the care of a relative rather than remaining in their own home.

**Recommendation:** Deploying commands should be particularly vigilant when reviewing women's plans for their dependents to ensure that the children have continued access to Navy services.

## **Family Planning and Birth Control**

**Conclusion:** The percentage of women officers who are uncomfortable when interacting with corpsmen about birth control has increased. This change may result from more women being assigned to small ships where medical care is provided by independent duty corpsmen (IDC).

**Recommendation:** Whether the discomfort is due to the sex of the corpsman, rank differential between officers and enlisted, or fear of indiscretion needs to be determined before actions to alleviate the problem are considered. The next version of the survey should include a question designed to explore the source of the discomfort.

**Conclusion:** The training video, "Give Yourself a Chance," which was developed to promote family planning, had been seen by less than 5 percent of the survey sample. Its "by request" method of dissemination is ineffective.

**Recommendation:** The video should be vigorously promoted.

**Conclusion:** Information on emergency contraception is not being provided to Navy personnel, and its availability in military treatment facilities has not been communicated.

**Recommendation:** Medical professionals should discuss emergency contraception and its availability with women during their annual gynecological examinations. With men, this method should be described in discussions of birth control.

## **Pregnancy**

**Conclusion:** The number of women who became pregnant while using birth control methods is too high, suggesting that the requirements for reliable use are not being followed.

**Recommendation:** Medical providers should query women on their method of birth control and reinforce the behaviors needed for reliable use during their annual gynecological exam. If women are having difficulty consistently using a birth control method, other contraception methods should be recommended.

**Conclusion:** Commands are not ensuring that pregnant women are offered help in establishing paternity and obtaining financial support as required in the Navy pregnancy policy.

**Recommendation:** A system of accountability for this requirement should be set up, perhaps by requiring a "page 13" entry in the woman's service record. In addition, a handout explaining what kind of help is available should be made available at Family Service Centers, clinic waiting rooms, and legal offices for distribution to pregnant women.

**Conclusion:** Over 20 percent of pregnant women are delaying too long before notifying their commands of their pregnancy and possibly endangering their fetus.

**Recommendation:** This problem needs to be addressed in training to reach women whose pregnancies are not diagnosed by military doctors.

**Conclusion:** Almost half of the enlisted women who were breast feeding infants when they returned to duty had to discontinue nursing.

**Recommendation:** Why extracting milk cannot be accommodated during mealtimes and other breaks needs to be determined.



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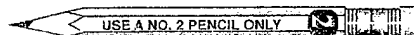
**Appendix A**  
**1999 Pregnancy and Parenthood Survey—Female Version**

# 1999 Pregnancy and Parenthood Survey - Female Version

## PRIVACY ACT STATEMENT

Authority to request this information is granted under 10 U.S.C. 5031 and 5032 and 5 U.S.C. 301 and Department of the Navy Regulations. License to administer this survey is granted under OPNAV Report Control Symbol 6300-1, which expires on 1 April, 2001. The purpose of this questionnaire is to collect data to evaluate existing and proposed Navy personnel policies, procedures, and programs. The information provided in this questionnaire will be analyzed by the Navy Personnel Research and Development Center, where the data files will be maintained. All responses will be kept secure by the Navy Personnel Research and Development Center. Information you provide will be reported only when statistically summarized with the responses of others, and the responses of no individual will be identified. Completion of this questionnaire is entirely voluntary. Failure to respond to any of the questions will NOT result in any penalties except that your views will not be represented in the final report.

- \* **USE NO. 2 PENCIL ONLY.**
- \* **Do NOT use ink, ballpoint or felt tip pens.**
- \* **Erase cleanly and completely any changes you make.**
- \* **Make black marks that fill the circle.**
- \* **When applicable, write the numbers in the boxes at the top of the block.**
- \* **Do not make stray marks on the form.**
- \* **Do not fold, tear, or mutilate this form.**



**WRONG MARKS:**

**RIGHT MARK:**

## DEMOGRAPHICS

1. What is your age?

Years	
	0
1	1
2	2
3	3
4	4
5	5
6	6
	7
	8
	9

2. Are you of Spanish/Hispanic origin or descent?

- ☐ Yes  
☐ No

3. What is your racial background?

- ☐ African-American  
☐ Asian/Pacific Islander  
☐ White  
☐ Other

4. What is your current marital status?

- ☐ Single, never married  
☐ Divorced, separated, or widowed  
☐ Married to Navy servicemember  
☐ Married to member of another military service or Coast Guard  
☐ Married to civilian

5. To what type of command are you currently assigned?

- ☐ Ship  
☐ Other deployable squadron  
☐ Other deployable unit  
☐ Non-deployable squadron  
☐ Shore activity or command, but not as a student  
☐ Navy funded school as a student

6. What are your current Navy career plans?

- ☐ Probably will leave at the end of this enlistment/obligation  
☐ Probably will sign on again, but not stay until eligible to retire  
☐ Probably will stay until eligible to retire  
☐ Eligible to retire now, but will remain on active duty  
☐ Undecided

7. What is your paygrade/rank?

- |                           |                           |                           |
|---------------------------|---------------------------|---------------------------|
| <input type="radio"/> E-1 | <input type="radio"/> W-2 | <input type="radio"/> O-1 |
| <input type="radio"/> E-2 | <input type="radio"/> W-3 | <input type="radio"/> O-2 |
| <input type="radio"/> E-3 | <input type="radio"/> W-4 | <input type="radio"/> O-3 |
| <input type="radio"/> E-4 |                           | <input type="radio"/> O-4 |
| <input type="radio"/> E-5 |                           | <input type="radio"/> O-5 |
| <input type="radio"/> E-6 |                           | <input type="radio"/> O-6 |
| <input type="radio"/> E-7 |                           |                           |
| <input type="radio"/> E-8 |                           |                           |
| <input type="radio"/> E-9 |                           |                           |

8. What is your officer designator?

☐ Does not apply. I am enlisted.

0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

9. If you are rated or a designated striker, what is your general rating?

☐ Does not apply. I am an officer.

☐ I am not rated or a designated striker.

→ I am:

- ☐ SN  
☐ AN  
☐ FN  
☐ CN

A	A	A	A
B	B	B	B
C	C	C	C
D	D	D	D
E	E	E	E
F	F	F	F
G	G	G	G
H	H	H	H
I	I	I	I
J	J	J	J
K	K	K	K
L	L	L	L
M	M	M	M
N	N	N	N
O	O	O	O
P	P	P	P
Q	Q	Q	Q
R	R	R	R
S	S	S	S
T	T	T	T
U	U	U	U
V	V	V	V
W	W	W	W
X	X	X	X
Y	Y	Y	Y
Z	Z	Z	Z

Please begin your answer in the left column.

## PARENTHOOD

10. Have you ever been a parent while in the Navy?

- ☐ Yes  
☐ No (skip to question 20)

11. When you entered the Navy, were you:

- ☐ Married, with child(ren)  
☐ Married, (without child(ren))  
☐ Single, no child(ren)  
☐ Single parent with custody of child(ren)  
☐ Single parent without custody of child(ren)

→ Did you get custody back within 6 months of entering the Navy?

- ☐ No  
☐ Yes

12. What are the ages of your children (natural, adopted, or stepchildren) under the age of 21 who live in your household? (Include children who would normally live with you but who are not with you now because you are deployed or on an unaccompanied tour.) (Mark all that apply.)

- ☐ I have no child(ren) under age 21 living in my household  
☐ Birth through 2 years  
☐ 3 through 5 years  
☐ 6 through 12 years  
☐ 13 through 15 years  
☐ 16 through 20 years

13. Since joining the Navy, have you ever been a single parent, with or without custody, of a child under the age of 21?

- ☐ Yes  
☐ No (skip to question 17)

14. Are you currently a single parent of a child(ren) under the age of 21?

- ☐ Yes, **with custody** of my child(ren)  
☐ Yes, **with joint custody** of my child(ren)  
☐ Yes, but I don't have custody or joint custody of my child(ren)  
☐ No

15. How did you become a single parent?

- ☐ Divorce  
☐ Unmarried when child was born  
☐ Adoption  
☐ Death of spouse  
☐ Other (specify \_\_\_\_\_)

16. Do you financially support or contribute to the financial support of your child(ren)?

- ☐ Yes  
☐ No

17. Who usually cares for your child(ren) when you are deployed or on an unaccompanied tour?

- ☐ I have no child(ren) under the age of 21 (skip to question 20)  
☐ I have never been deployed or on an unaccompanied tour (skip to question 19)  
☐ Their other parent (natural or step-parent) cares for them  
☐ A grandparent or other relative cares for them  
☐ Someone who is not a relative cares for them

18. Where is your child(ren) cared for when you are deployed or on an unaccompanied tour?

- ☐ In their own home  
☐ In the home of the person who cares for them

19. All single parents with custody and military-married-to-military parents must complete the Family Care Certificate. On this form, parents state who will be responsible for their child(ren) if the parent is recalled to duty, sent TAD, or assigned an unaccompanied tour. Since arriving at your current command, have you completed a Family Care Certificate?

- ☐ No, because I am not a single or military-married-to-military parent  
☐ No, because I have not been here 60 days yet  
☐ No, I have not been told to complete the form  
☐ No, but I have been told to complete the form  
☐ Yes, I have completed it

20. Have you seen the CNET "Give Yourself a Chance", the Responsible Parenting video?

- ☐ No (skip to question 22)  
☐ I think so, but I'm not sure  
☐ Yes, at recruit training  
☐ Yes, at this command  
☐ Yes, at some other command

21. Who do you think this video applies to?

- ☐ It applies to everyone in the Navy  
☐ It only applies to unmarried people  
☐ It only applies to married people

## FAMILY PLANNING ATTITUDES

22. When in her Navy career is the best time for a woman to become pregnant?

- ☐ Never; being in the Navy and motherhood are not compatible  
☐ Whenever the woman wants a child  
☐ After her first tour  
☐ During shore duty, but not after getting orders to sea duty  
☐ While on sea duty  
☐ After receiving orders to shore duty, if the ship/squadron is not deploying

The following statements describe beliefs concerning birth control. Please indicate how well each statement reflects your beliefs.

23. I think it is important to use birth control until getting married, and then it doesn't matter.

24. I have had sexual intercourse without using birth control (or my partner using it) even though I did not want to get pregnant.

25. I would have sexual intercourse without birth control if my partner wanted me to.

26. When a birth control method is not available, I believe you just have to take a chance and hope that a pregnancy does not result.

27. I would feel comfortable going to a military health care provider about birth control.

28. I would feel comfortable going to a corpsman concerning birth control.

29. I would feel comfortable discussing birth control with the medical personnel aboard ship.

30. I make it my responsibility to discuss birth control with my partner.

31. I think it is important for men to get involved with birth control.

32. My most recent partner encouraged use of birth control.

33. Birth control is the responsibility of the woman.

Not applicable  
Completely true of me  
Mostly true of me  
Somewhat true of me  
Slightly true of me  
Not at all true of me

## BIRTH CONTROL PRACTICES

34. Do you or your partner usually use a form of birth control? (If you have more than one partner, answer with your **usual or most recent** partner in mind.)

- ☐ Yes (skip to question 36)  
☐ No

35. Why don't you use birth control?

- ☐ I do not have sex (abstinent) or have not had sex in 6 months (skip to question 37)  
☐ I (or my partner) have been sterilized (tubes tied or vasectomy) (skip to question 37)  
☐ I (or my partner) am not fertile (skip to question 37)  
☐ My (or my partner's) religion or personal beliefs do not permit the use of birth control (skip to question 37)  
☐ I do not want to use birth control (skip to question 37)  
☐ I am pregnant or I am trying to get pregnant  
☐ Other (specify \_\_\_\_\_)

36. What method of birth control do you or your partner usually use?

- ☐ Birth control pill  
☐ Condom (rubber) only  
☐ Condom with another method  
☐ Depo-Provera®  
☐ Rhythm method  
☐ Withdrawal  
☐ Diaphragm  
☐ IUD (intrauterine device)  
☐ Spermicidal foam or jelly  
☐ Other (specify \_\_\_\_\_)

37. On the last occasion that you had unprotected sex (without birth control), had you or your partner been drinking alcohol?

- ☐ I never have unprotected sex except when I want to conceive a child  
☐ Neither of us was drinking  
☐ Both of us were drinking  
☐ I was drinking  
☐ He was drinking

Regarding emergency contraception, which of the following statements are true for you? (Mark one answer for each statement.)

38. I know what emergency contraception is.

39. During my last physical exam, emergency contraception was discussed.

40. Emergency contraception is available where I am currently stationed.

Indicate whether you believe each of the following statements is true, false, or you don't know.

41. Condoms are just as effective as the pill in preventing pregnancy.

42. Women cannot get pregnant during their menstrual period.

43. Birth control medicines (e.g., the pill, Depo-Provera®) lead to cancer.

44. If a woman misses 2 or more pills in a row, she must use an additional method of birth control along with the pill for the remainder of the month to be safe.

45. Almost all women who take the birth control pill gain weight.

46. All methods of birth control are equally effective.

47. In which of the following areas has your current command provided training? (Mark all that apply.)

- ☐ STDs (sexually transmitted diseases), including HIV  
☐ Methods of birth control  
☐ Navy pregnancy policy  
☐ Navy Family Care Plan  
☐ None of the above

## PREGNANCY

48. At any time since entering the Navy have you been pregnant?

- ☐ No (skip to question 83 on page 8)  
☐ Yes

49. Did you become pregnant between 1 October 1997 and 30 September 1998? (Do NOT count pregnancies that began before 1 October 1997 even though you were pregnant on that date.)

- ☐ No  
☐ Yes

50. Are you pregnant now?

- ☐ No  
☐ Yes  
☐ I think I may be but have not been tested

The next set of questions asks about your most recent pregnancy (it could be your current or only pregnancy) since entering the Navy. If you have never been pregnant while in the Navy, skip to question 83 on page 8.

51. How old were you when you became pregnant?

Years	
	0
1	1
2	2
3	3
4	4
	5
	6
	7
	8
	9

52. What was your paygrade/rank when you became pregnant?

<input type="radio"/> E-1	<input type="radio"/> W-2	<input type="radio"/> O-1
<input type="radio"/> E-2	<input type="radio"/> W-3	<input type="radio"/> O-2
<input type="radio"/> E-3	<input type="radio"/> W-4	<input type="radio"/> O-3
<input type="radio"/> E-4		<input type="radio"/> O-4
<input type="radio"/> E-5		<input type="radio"/> O-5
<input type="radio"/> E-6		<input type="radio"/> O-6
<input type="radio"/> E-7		
<input type="radio"/> E-8		
<input type="radio"/> E-9		

53. Was that pregnancy planned?

☐ Yes  
☐ No

54. What was the outcome of that pregnancy?

☐ I am still pregnant  
☐ Live birth (delivery of a live child after 36th week of pregnancy)  
☐ Premature birth (delivery of a live child in the 20th through 36th week of pregnancy)  
☐ Stillbirth  
☐ Miscarriage (delivery of a fetus before 20th week of pregnancy)  
☐ Ectopic pregnancy (tubal pregnancy)  
☐ Abortion

55. Were you using birth control when you became pregnant?

☐ Yes  
☐ No (skip to question 57)

56. What method of birth control were you using?

☐ Birth control pill  
☐ Condom (rubber)  
☐ IUD  
☐ Depo-Provera®  
☐ Spermicidal foam or jelly  
☐ Diaphragm  
☐ Rhythm method  
☐ Withdrawal  
☐ Other (specify: \_\_\_\_\_)

57. What was your marital status at the time you became pregnant?

☐ Married  
☐ Single, never married  
☐ Divorced, separated, or widowed

58. What was the father's military status?

☐ He was not in the military  
☐ In the Navy  
☐ In one of the other services

59. If military, what was his paygrade/rank?

<input type="radio"/> E-1	<input type="radio"/> W-2	<input type="radio"/> O-1
<input type="radio"/> E-2	<input type="radio"/> W-3	<input type="radio"/> O-2
<input type="radio"/> E-3	<input type="radio"/> W-4	<input type="radio"/> O-3
<input type="radio"/> E-4		<input type="radio"/> O-4
<input type="radio"/> E-5		<input type="radio"/> O-5
<input type="radio"/> E-6		<input type="radio"/> O-6
<input type="radio"/> E-7		
<input type="radio"/> E-8		
<input type="radio"/> E-9		

60. How many weeks pregnant were you when:

a. You found out you were pregnant?

b. Your command was notified?

Weeks	
	0
1	1
2	2
3	3
	4
	5
	6
	7
	8
	9

Weeks	
	0
1	1
2	2
3	3
	4
	5
	6
	7
	8
	9

61. If there was **more than a week's delay** between your finding out and your command being notified, what was the reason for the delay?

- ☐ There was no delay
- ☐ I was on leave or TAD when I found out
- ☐ I wanted to think about or get an abortion
- ☐ I wanted to be sure I was really pregnant
- ☐ I wanted to discuss what to do about my pregnancy with someone else
- ☐ I wanted to delay my command finding out (Please indicate why: \_\_\_\_\_)

\_\_\_\_\_ )

- ☐ Other (specify: \_\_\_\_\_)
- \_\_\_\_\_ )

62. Were you offered information from your chain of command or legal office on how you could get financial support from the father?

- ☐ Yes
- ☐ No
- ☐ No. Since I was married, they probably thought I didn't need it.

63. Did your coworkers treat you differently after finding out that you were pregnant?

- ☐ No
- ☐ Yes, they showed more concern for my welfare
- ☐ Yes, they were overprotective
- ☐ Yes, they avoided or ignored me
- ☐ Yes, they treated me with less respect

64. Did your supervisor treat you differently after finding out that you were pregnant?

- ☐ No
- ☐ Yes, he/she showed more concern for my welfare
- ☐ Yes, he/she was overprotective
- ☐ Yes, he/she avoided or ignored me
- ☐ Yes, he/she treated me with less respect

65. To what type of command were you assigned when you became pregnant?

- ☐ Ship (skip to question 67)
- ☐ Deployable squadron (skip to question 67)
- ☐ Other deployable unit (skip to question 67)
- ☐ Non-deployable squadron
- ☐ Shore activity or command, but not as a student
- ☐ Navy funded school as a student

66. Did you have orders to a ship or deployable squadron when you became pregnant?

- ☐ Yes
- ☐ No

67. If you were in a sea duty unit, in what cycle was the unit when you became pregnant?

- ☐ I was not in a sea duty unit
- ☐ Within 6 months of going on deployment
- ☐ Deployed
- ☐ Within 6 months after deploying
- ☐ Major overhaul
- ☐ Other

68. Were you (or are you scheduled to be) transferred or moved as a result of being pregnant?

- ☐ Not scheduled to deploy with orders to shore duty
- ☐ No, I continued to work where I was before becoming pregnant (skip to question 75)
- ☐ Yes, from sea to shore duty
- ☐ Yes, from overseas shore duty to CONUS
- ☐ Yes, from a deployable aviation station to the air station or non-deploying squadron
- ☐ Yes, from the work center I was in to another work center at the same command
- ☐ Yes, other (specify from and to \_\_\_\_\_)

69. How many weeks pregnant were you (or will you be) when you were transferred or moved?

Weeks

0	0
1	1
2	2
3	3
4	
5	
6	
7	
8	
9	

70. If you were on sea duty at the time, how long before your original prospective rotation date (PRD) were you moved ashore?

- ☐ I was not on sea duty at the time (skip to question 75)

Years

0
1
2
3
4
5

and

Months

0	0
1	1
2	
3	
4	
5	
6	
7	
8	
9	



71. If you were moved off the ship before the 20th week of your pregnancy, why did it happen?

- ☐ I was not moved before the 20th week
- ☐ Because of medical reasons
- ☐ Because the ship had a heavy underway schedule or was deploying
- ☐ Because of the ship's policy to transfer pregnant women before the 20th week
- ☐ I don't know why
- ☐ Because of (specify \_\_\_\_\_)

72. Did you asked to be moved?

- ☐ Yes (skip to question 74)
- ☐ No

73. Who was the primary person who wanted you to be transferred or moved?

- ☐ Doctor or other medical person
- ☐ My immediate supervisor
- ☐ Someone above my supervisor
- ☐ Navy policy required that I be moved
- ☐ I don't know

74. What type of work did you do after the move?

- ☐ Same as before but in a different location
- ☐ Admin/clerical kind of work that is not in my rating/designator
- ☐ Duty office/phone watch
- ☐ Other (specify \_\_\_\_\_)

75. Where did you deliver the baby?

- ☐ I did not deliver
- ☐ At a military hospital
- ☐ At a civilian hospital
- ☐ Other

The following questions refer to events occurring after your most recent pregnancy if you delivered an infant who survived. If you miscarried, aborted, had a still birth, or ectopic pregnancy, skip to question 83 on page 8.

76. How many days were you off after the delivery (convalescent and other leave) before returning to duty?

Days	
0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

77. Did you return to the unit you were assigned to prior to your pregnancy?

- ☐ Does not apply. I was not transferred or sent TAD during pregnancy (skip to question 79)
- ☐ Yes, I had been transferred but returned to my unit (skip to question 79)
- ☐ Yes, I had been TAD but returned to my unit (skip to question 79)
- ☐ No, I stayed with the unit I had been transferred to during my pregnancy
- ☐ No, I went to a different shore-duty command
- ☐ No, I went to a different ship or deployable unit

78. Did you consider this new assignment as career enhancing as your assignment before the pregnancy?

- ☐ It was equally career enhancing
- ☐ It was not as career enhancing
- ☐ It was more career enhancing

79. Did you feel you were treated differently at work by your co-workers because you had a baby?

- ☐ No
- ☐ Yes, with more concern for my welfare
- ☐ Yes, with more respect
- ☐ Yes, with less respect
- ☐ Other (specify \_\_\_\_\_)

80. Did you feel you were treated differently at work by your supervisor because you had a baby?

- ☐ No
- ☐ Yes, with more concern for my welfare
- ☐ Yes, with more respect
- ☐ Yes, with less respect
- ☐ Other (specify \_\_\_\_\_)

81. Did you have difficulty passing the PT test after the 6-month waiver period following childbirth?

- ☐ No
- ☐ Yes, but I also had difficulty passing it before my pregnancy
- ☐ Yes, but I did not have difficulty passing it before my pregnancy
- ☐ Doesn't apply because it hasn't been 6 months yet

82. Did you have difficulty meeting the Navy's weight standard after the 6-month waiver period following childbirth?

- ☐ No
- ☐ Yes, but I also had difficulty meeting it before my pregnancy
- ☐ Yes, but I did not have difficulty meeting it before my pregnancy
- ☐ Doesn't apply because it hasn't been 6 months yet

## MEDICAL

83. In the past 12 months, have you had a routine gynecological (pelvic) exam?

- ☐ No (skip to question 87)
- ☐ Yes, in a military treatment facility
- ☐ Yes, in a ship
- ☐ Yes, in a civilian medical facility

84. During the exam, which of the following topics was discussed? (Mark all that apply.)

- ☐ Birth control methods
- ☐ Sexually transmitted diseases (STDs), including HIV
- ☐ Neither was discussed

85. How long did you have to wait to get an appointment?

- ☐ Less than 30 days
- ☐ More than 30 days

86. How long did you have to wait to get the results of the Pap smear?

- ☐ Less than 2 weeks
- ☐ More than 2 weeks

87. Have you had a mammogram?

- ☐ Yes (skip to question 89)
- ☐ No, though I am 40 or older
- ☐ No, I am under 40 (skip to question 89)

88. Why haven't you had a mammogram?

- ☐ I've been too busy
- ☐ No one told me that I needed one
- ☐ It is too hard to get an appointment
- ☐ I don't want one because (specify \_\_\_\_\_)

89. Sexually transmitted diseases (STDs) can negatively affect a woman's ability to become pregnant or give birth to healthy infants. During the last 12 months, have you had an STD?

- ☐ No
- ☐ Yes (specify which \_\_\_\_\_)

If you were pregnant between 1 September 1997 and 31 August 1998, please continue with the next group of questions. They were designed to provide information needed to improve reproductive health of Navy women. If you were not pregnant during this period, please mail the survey in the enclosed envelope. Thank you for your participation.

90. Before delivery, were your work hours reduced to less than 40 hours per week? (Mark all that apply.)

- ☐ No
- ☐ Yes, during the 1st three months
- ☐ Yes, during the 2nd three months
- ☐ Yes, during the 7th and 8th months
- ☐ Yes, during the last month

91. If you were breast feeding when you returned to duty, were you given time to pump your breasts or breast feed your baby?

- ☐ I was not breast feeding when I returned to duty
- ☐ Yes, during my breaks or meals
- ☐ Yes, when I needed to pump
- ☐ No

When, if at all, did each of the following occur during your pregnancy? (Mark all that apply.)

92. I smoked 10 or more cigarettes on most days.

93. I had 1 or more drinks (1 oz. hard liquor, 1 beer, or 1 glass of wine) several times a week.

94. I was exposed to radioactivity or radiation.

95. I worked with paints, solvents, or fuels.

96. I had to wear ear plugs or ear muffs at work due to loud noise.

97. I was exposed to whole body vibration, such as in an engine room, helicopter, or from heavy machinery.

98. I had to stand most of an 8 hour shift.

99. I was enrolled in a heat protection program.

	1st 3 months	2nd 3 months	Last 3 months
92. I smoked 10 or more cigarettes on most days.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
93. I had 1 or more drinks (1 oz. hard liquor, 1 beer, or 1 glass of wine) several times a week.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
94. I was exposed to radioactivity or radiation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
95. I worked with paints, solvents, or fuels.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
96. I had to wear ear plugs or ear muffs at work due to loud noise.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
97. I was exposed to whole body vibration, such as in an engine room, helicopter, or from heavy machinery.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
98. I had to stand most of an 8 hour shift.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
99. I was enrolled in a heat protection program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Thank you for your participation!**

Please complete the survey as soon as possible, and put it in the envelope provided or return to:

COMMANDING OFFICER  
Navy Personnel Research and Development Center  
Survey Operations Center (SCC)  
53335 Ryne Road  
San Diego, CA 92152-7250

If you have any questions, call Dr. Jackie Mottorn  
(601) 874-4656 or DSN 882-4656, or e-mail: mottorn@nprdc.navy.mil

**Appendix B**  
**1999 Pregnancy and Parenthood Survey—Male Version**

# 1999 Pregnancy and Parenthood Survey - Male Version

## PRIVACY ACT STATEMENT

Authority to request this information is granted under 10 U.S.C. 5031 and 5032 and 5 U.S.C. 301 and Department of the Navy Regulations. License to administer this survey is granted under OPNAV Report Control Symbol 6300-1, which expires on 1 April, 2001. The purpose of this questionnaire is to collect data to evaluate existing and proposed Navy personnel policies, procedures, and programs. The information provided in this questionnaire will be analyzed by the Navy Personnel Research and Development Center, where the data files will be maintained. All responses will be kept secure by the Navy Personnel Research and Development Center. Information you provide will be reported only when statistically summarized with the responses of others, and the responses of no individual will be identified. Completion of this questionnaire is entirely voluntary. Failure to respond to any of the questions will NOT result in any penalties except that your views will not be represented in the final report.

- \* **USE NO. 2 PENCIL ONLY.**
- \* **Do NOT use ink, ballpoint or felt tip pens.**
- \* **Erase cleanly and completely any changes you make.**
- \* **Make black marks that fill the circle.**
- \* **When applicable, write the numbers in the boxes at the top of the block.**
- \* **Do not make stray marks on the form.**
- \* **Do not fold, tear, or mutilate this form.**



**WRONG MARKS:**

**RIGHT MARK:**

## DEMOGRAPHICS

1. What is your age?

Years	
	0
1	1
2	2
3	3
4	4
5	5
6	6
	7
	8
	9

2. Are you of Spanish/Hispanic origin or descent?

- ☐ Yes  
☐ No

3. What is your racial background?

- ☐ African-American  
☐ Asian/Pacific Islander  
☐ White  
☐ Other

4. What is your current marital status?

- ☐ Single, never married  
☐ Divorced, separated, or widowed  
☐ Married to Navy servicemember  
☐ Married to member of another military service or Coast Guard  
☐ Married to civilian

5. To what type of command are you currently assigned?

- ☐ Ship  
☐ Other deployable squadron  
☐ Other deployable unit  
☐ Non-deployable squadron  
☐ Shore activity or command, but not as a student  
☐ Navy funded school as a student

6. What are your current Navy career plans?

- ☐ Probably will leave at the end of this enlistment/obligation  
☐ Probably will sign on again, but not stay until eligible to retire  
☐ Probably will stay until eligible to retire  
☐ Eligible to retire now, but will remain on active duty  
☐ Undecided

7. What is your paygrade/rank?

- |                           |                           |                           |
|---------------------------|---------------------------|---------------------------|
| <input type="radio"/> E-1 | <input type="radio"/> W-2 | <input type="radio"/> O-1 |
| <input type="radio"/> E-2 | <input type="radio"/> W-3 | <input type="radio"/> O-2 |
| <input type="radio"/> E-3 | <input type="radio"/> W-4 | <input type="radio"/> O-3 |
| <input type="radio"/> E-4 |                           | <input type="radio"/> O-4 |
| <input type="radio"/> E-5 |                           | <input type="radio"/> O-5 |
| <input type="radio"/> E-6 |                           | <input type="radio"/> O-6 |
| <input type="radio"/> E-7 |                           |                           |
| <input type="radio"/> E-8 |                           |                           |
| <input type="radio"/> E-9 |                           |                           |

8. What is your officer designator?

☐ Does not apply. I am enlisted.

0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

9. If you are rated or a designated striker, what is your general rating?

☐ Does not apply. I am an officer.  
☐ I am not rated or a designated striker.

→ I am:  
☐ SN  
☐ AN  
☐ FN  
☐ CN

A	A	A	A
B	B	B	B
C	C	C	C
D	D	D	D
E	E	E	E
F	F	F	F
G	G	G	G
H	H	H	H
I	I	I	I
J	J	J	J
K	K	K	K
L	L	L	L
M	M	M	M
N	N	N	N
O	O	O	O
P	P	P	P
Q	Q	Q	Q
R	R	R	R
S	S	S	S
T	T	T	T
U	U	U	U
V	V	V	V
W	W	W	W
X	X	X	X
Y	Y	Y	Y
Z	Z	Z	Z

Please begin your answer in the left column.

## PARENTHOOD

10. Have you ever been a parent while in the Navy?

☐ Yes  
☐ No (skip to question 20)

11. When you entered the Navy, were you:

☐ Married, with child(ren)  
☐ Married, without child(ren)  
☐ Single, no child(ren)  
☐ Single parent with custody of child(ren)  
☐ Single parent without custody of child(ren)

→ Did you get custody back within 6 months of entering the Navy?

☐ No  
☐ Yes

12. What are the ages of your children (natural, adopted, or stepchildren) under the age of 21 who live in your household? (Include children who would normally live with you but who are not with you now because you are deployed or on an unaccompanied tour.) (Mark all that apply.)

☐ I have no child(ren) under age 21 living in my household  
☐ Birth through 2 years  
☐ 3 through 5 years  
☐ 6 through 12 years  
☐ 13 through 15 years  
☐ 16 through 20 years

13. Since joining the Navy, have you ever been a single parent, with or without custody, of a child under the age of 21?

☐ Yes  
☐ No (skip to question 17)

14. Are you currently a single parent of a child(ren) under the age of 21?

☐ Yes, with custody of my child(ren)  
☐ Yes, with joint custody of my child(ren)  
☐ Yes, but I don't have custody or joint custody of my child(ren)  
☐ No

15. How did you become a single parent?

☐ Divorce  
☐ Unmarried when child was born  
☐ Adoption  
☐ Death of spouse  
☐ Other (specify \_\_\_\_\_)

16. Do you financially support or contribute to the financial support of your child(ren)?

- ☐ Yes  
☐ No

17. Who usually cares for your child(ren) when you are deployed or on an unaccompanied tour?

- ☐ I have no child(ren) under the age of 21 (skip to question 20)  
☐ I have never been deployed or on an unaccompanied tour (skip to question 19)  
☐ Their other parent (natural or step-parent) cares for them  
☐ A grandparent or other relative cares for them  
☐ Someone who is not a relative cares for them

18. Where is your child(ren) cared for when you are deployed or on an unaccompanied tour?

- ☐ In their own home  
☐ In the home of the person who cares for them

19. All single parents with custody and military-married-to-military parents must complete the Family Care Certificate. On this form, parents state who will be responsible for their child(ren) if the parent is recalled to duty, sent TAD, or assigned an unaccompanied tour. Since arriving at your current command, have you completed a Family Care Certificate?

- ☐ No, because I am not a single or military-married-to-military parent  
☐ No, because I have not been here 60 days yet  
☐ No, I have not been told to complete the form  
☐ No, but I have been told to complete the form  
☐ Yes, I have completed it

20. Have you seen the CNET "Give Yourself a Chance", the Responsible Parenting video?

- ☐ No (skip to question 22)  
☐ I think so, but I'm not sure  
☐ Yes, at recruit training  
☐ Yes, at this command  
☐ Yes, at some other command

21. Who do you think this video applies to?

- ☐ It applies to everyone in the Navy  
☐ It only applies to unmarried people  
☐ It only applies to married people

## FAMILY PLANNING ATTITUDES

22. When in her Navy career is the best time for a woman to become pregnant?

- ☐ Never; being in the Navy and motherhood are not compatible  
☐ Whenever the woman wants a child  
☐ After her first tour  
☐ During shore duty, but not after getting orders to sea duty  
☐ While on sea duty  
☐ After receiving orders to shore duty, if the ship/squadron is not deploying

The following statements describe beliefs concerning birth control. Please indicate how well each statement reflects your beliefs.

23. I think it is important to use birth control until getting married, and then it doesn't matter.

24. I have had sexual intercourse without using birth control (or my partner using it) even though I did not want to father a child.

25. When a birth control method is not available, I believe you just have to take a chance and hope that a pregnancy does not result.

26. I would feel comfortable going to a military health care provider about birth control.

27. I would feel comfortable going to a corpsman concerning birth control.

28. I would feel comfortable discussing birth control with the medical personnel aboard ship.

29. I make it my responsibility to discuss birth control with my partner.

30. I think it is important for men to get involved with birth control.

31. My most recent partner encouraged use of birth control.

32. Birth control is the responsibility of the woman.

Not at all true of me	Slightly true of me	Mostly true of me	Completely true of me	Not applicable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## BIRTH CONTROL PRACTICES

33. When was your last physical exam?
- ☐ Less than one year ago
  - ☐ 1 to 2 years ago
  - ☐ 3 to 4 years ago
  - ☐ 5 or more years ago
34. Was your last physical exam at a military medical facility?
- ☐ Yes
  - ☐ No
35. During your last physical exam, which of the following topics was discussed? (Mark all that apply.)
- ☐ Birth control methods
  - ☐ Sexually transmitted diseases (STDs), including HIV
  - ☐ Neither was discussed
36. Do you or your partner usually use a form of birth control? (If you have more than one partner, answer with your usual or most recent partner in mind.)
- ☐ Yes (skip to question 38)
  - ☐ No
37. Why don't you use birth control?
- ☐ I do not have sex (abstinent) or have not had sex in 6 months (skip to question 40)
  - ☐ I (or my partner) have been sterilized (tubes tied or vasectomy) (skip to question 40)
  - ☐ I (or my partner) am not fertile (skip to question 40)
  - ☐ My (or my partner's) religion or personal beliefs do not permit the use of birth control (skip to question 40)
  - ☐ I do not want to use birth control (skip to question 40)
  - ☐ My partner is pregnant or trying to get pregnant
  - ☐ Other (specify \_\_\_\_\_)
38. What method of birth control do you or your partner usually use?
- ☐ Birth control pill
  - ☐ Condom (rubber) only
  - ☐ Condom with another method
  - ☐ Depo-Provera®
  - ☐ Rhythm method
  - ☐ Withdrawal
  - ☐ Diaphragm
  - ☐ IUD (intrauterine device)
  - ☐ Spermicidal foam or jelly
  - ☐ Other (specify \_\_\_\_\_)
39. On the last occasion that you had unprotected sex (without birth control), had you or your partner been drinking alcohol?
- ☐ I never have unprotected sex except when we want to conceive a child
  - ☐ Neither of us was drinking
  - ☐ Both of us were drinking
  - ☐ I was drinking
  - ☐ She was drinking

Indicate whether you believe each of the following statements is true, false, or you don't know.

- |   | True                  | False                 | Don't know            |
|---|-----------------------|-----------------------|-----------------------|
| 40. Condoms are just as effective as the pill in preventing pregnancy.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 41. Women cannot get pregnant during their menstrual period.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 42. Birth control medicines (e.g., the pill, Depo-Provera®) lead to cancer.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 43. If a woman misses two (2) or more pills in a row, she must use an additional method of birth control along with the pill for the remainder of the month to be safe. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 44. Almost all women who take the birth control pill gain weight.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 45. All methods of birth control are equally effective.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 46. In which of the following areas has your current command provided training? (Mark all that apply.)  |                       |                       |                       |
| <input type="radio"/> STDs (sexually transmitted diseases), including HIV   |                       |                       |                       |
| <input type="radio"/> Methods of birth control  |                       |                       |                       |
| <input type="radio"/> Navy pregnancy policy   |                       |                       |                       |
| <input type="radio"/> Navy Family Care Plan   |                       |                       |                       |
| <input type="radio"/> None of the above   |                       |                       |                       |

Regarding emergency contraception, which of the following statements are true for you? (Mark one answer for each statement.)

- |   | Yes                   | No                    | Don't know            |
|---|-----------------------|-----------------------|-----------------------|
| 47. I know what emergency contraception is.                                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 48. During my last physical exam, emergency contraception was discussed.          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 49. Emergency contraception is available where I am currently stationed.          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 50. During the last 12 months, have you had a sexually transmitted disease (STD)? |                       |                       |                       |
| <input type="radio"/> No  |                       |                       |                       |
| <input type="radio"/> Yes (specify which _____)                                   |                       |                       |                       |

**Thank you for your participation!**

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Survey Operations Center (SOC)  
53335 Ryne Road  
San Diego, CA 92152-7250

If you have any questions, call Dr. Jackie Mottern  
(901) 874-4656 or DSN 882-4656, [mottern@nprdc.navy.mil](mailto:mottern@nprdc.navy.mil)

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